



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

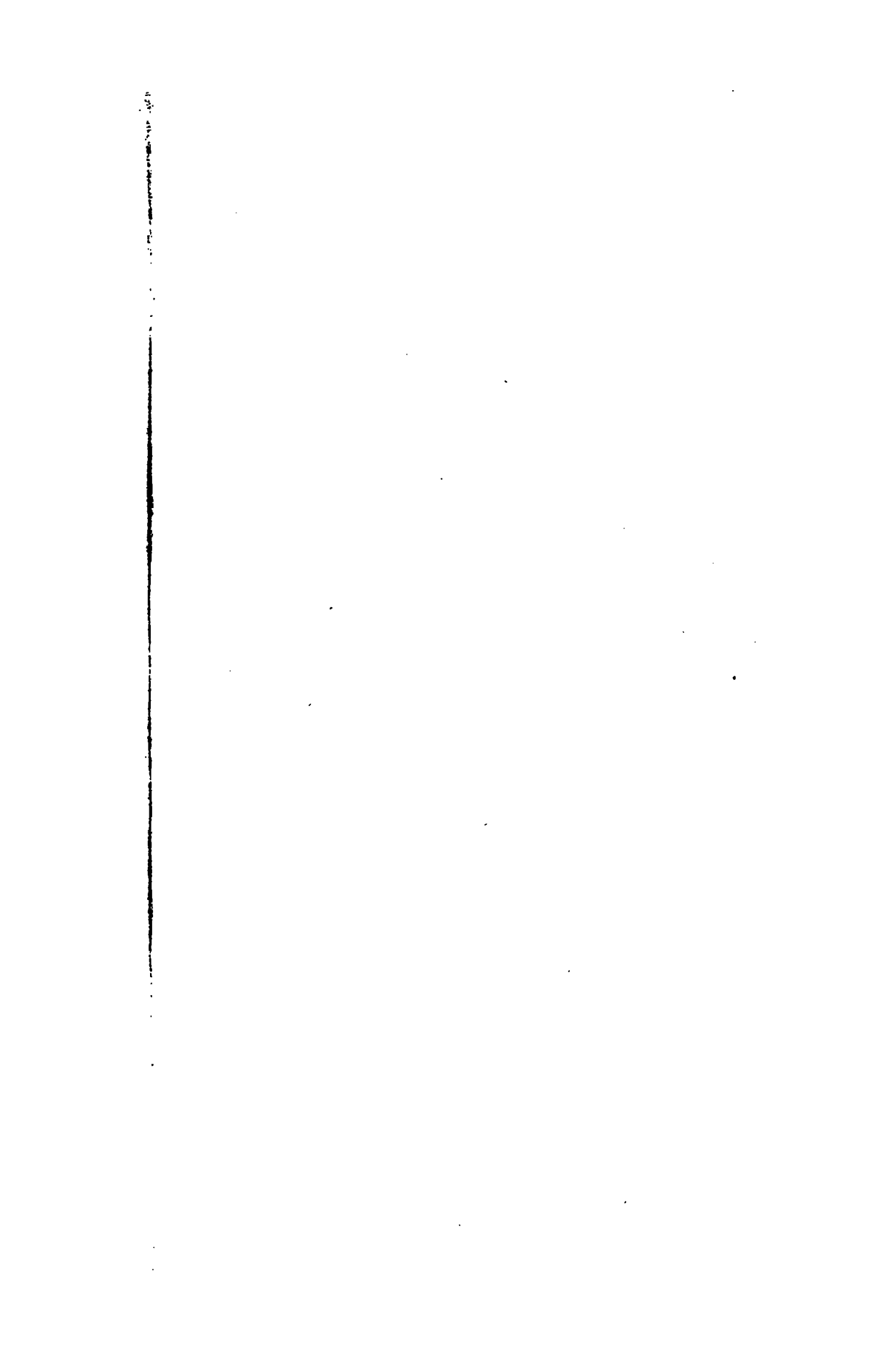
- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



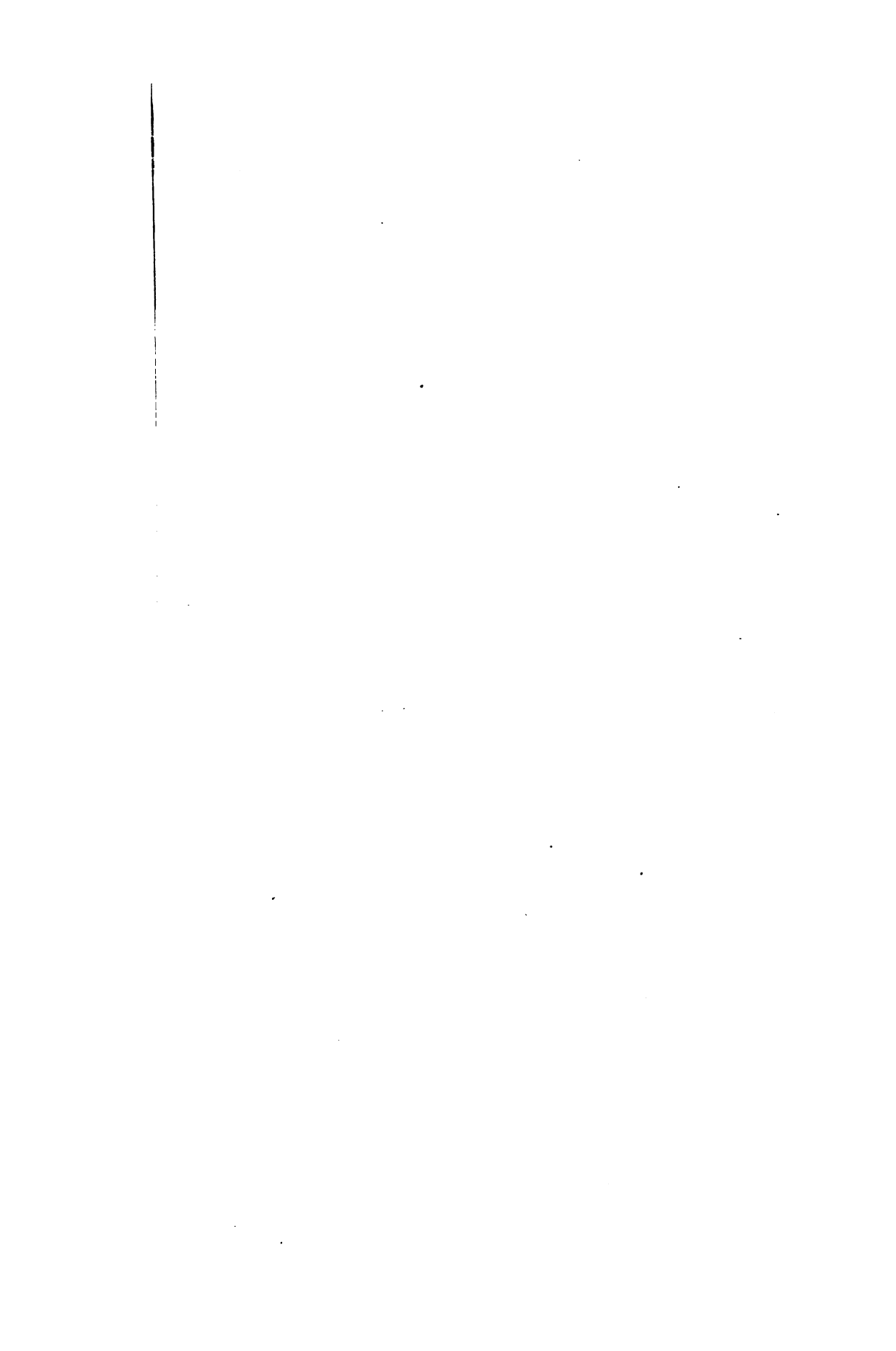
Pen 15012 d. 49





1

2





# THE ANNUAL REPORT

ON

THE HEALTH,

SANITARY CONDITION,

&c., &c.,

OF THE

Parish of St. Mary Abbotts,

KENSINGTON,

FOR THE YEAR

1883,

BY

**T. ORME DUDFIELD, M.D.,**

*(President of the Society of Medical Officers of Health,)*

*Medical Officer of Health.*

---

LONDON :

PRENTICE & MONSON, PRINTERS, 47, UPPER THAMES STREET.

1884.



## TABLE OF CONTENTS.

	PAGE.
PREFATORY REMARKS ON DEATH-RATE—Parochial, Metropolitan, and National, in 1883 .. .. .	9
REGISTRATION DISTRICT, " KENSINGTON : " What it includes..	11
" SUB-DISTRICTS; " KENSINGTON TOWN " and " BROMPTON " .. .. .	11
WARDS, Division of Parish into .. .. .	12
KENSINGTON, Population and Rateable Value of; 1801-83 ..	12
VITAL STATISTICS, in 1883; Summary of .. .. .	13
ZYMOTIC DISEASES, General Remarks on the " Seven Principal "	17
"     "     Number of deaths from the     "     "	20
"     "     Death-rate from : in Kensington, in London, and other large Towns, and in England and Wales .. .. .	20
"     "     In Kensington; Monthly Return of deaths from	21
MEASLES .. .. .	21
WHOOPING-COUGH .. .. .	22
SCARLET FEVER.. .. .	22
DIPHTHERIA .. .. .	24
FEVER .. .. .	25
" Typhus .. .. .	25
"     "     Meningitis from over-pressure at school, mistaken for .. .. .	25
" Enteric, Local outbreak of .. .. .	27
" Simple continued .. .. .	27
DIARRHŒA .. .. .	27
SMALL-POX .. .. .	28
WESTERN DISTRICT (LATE FULHAM) HOSPITAL .. .. .	29
FULHAM HOSPITAL CASE .. .. .	29

	PAGE.
HAMPSTEAD HOSPITAL CASE .. .. .	31
HOSPITALS COMMISSION, Action of Managers of Asylums Board, to give effect to the Recommendations of .. .. .	31
SMALL-POX HOSPITAL ACCOMMODATION .. .. .	31
SHIP-HOSPITALS.. .. .	31
HOSPITAL FOR SMALL-POX TO BE PROVIDED AT DARENTH ..	32
FEVER HOSPITAL ACCOMMODATION .. .. .	33
AMBULANCE SERVICE .. .. .	34
AMBULANCE STATION, Western District .. .. .	35
AMBULANCE STEAMERS .. .. .	35
WHARVES OR LANDING PLACES .. .. .	35
REMOVAL OF PATIENTS, Arrangements for the .. .. .	36
DEPAUPERISATION OF MEDICAL RELIEF .. .. .	36
NEED OF INCREASED FACILITIES for reception of Patients ..	36
ASYLUMS BOARD should be a Sanitary Authority .. .. .	37
HOSPITALS FOR INFECTIOUS DISEASES, The use and influence of..	38
FULHAM HOSPITAL, New Enquiry by Mr. W. H. Power with regard to .. .. .	39
„ „ Some facts with regard to the Epidemic of Small-pox in the district of, in 1884 .. .. .	40
CHOLERA, Precautions against .. .. .	43
„ Diseases Prevention (Metropolis) Act, 1883, Arrange- ments made by the Asylums Board under the : ..	44
„ Duties of Local Authorities (Vestries, &c.) under Diseases Prevention Act, 1855 .. .. .	45
„ Outbreak of, in France (July, 1884) .. .. .	45
„ Memorandum by Medical Officer of Local Government Board, with reference to precautions against .. ..	45
<hr/>	
NOTIFICATION OF Infectious Diseases .. .. .	46
„ „ Deputation to the Local Government Board ..	47
„ „ Views of President of the Local Government Board, on .. .. .	48
„ „ Bill to provide for .. .. .	49
„ „ Should be provided for by a Government Bill ..	49
VOLUNTARY NOTIFICATION, Existing sources of .. .. .	50
„ „ The beneficial results of .. .. .	52
INCREASED FACILITIES for removal of the Infectious sick.. ..	55
REGULATIONS OF ASYLUMS BOARD with regard to the removal of the infectious sick; important new arrangements .. ..	57
INTERRUPTION OF EDUCATION at Elementary Schools, resulting from prevalence of Infectious Diseases .. .. .	58

	PAGE.
POPULATION : Of Sub-Districts, Number of Inhabited Houses, &c.	59
,, Relative Numbers of Males and Females in the :	
at different ages, in parish, and in sub-districts ..	61
RATEABLE VALUE, &c. : Increase of, in 27 years and in 12 years	62
MARRIAGES, AND MARRIAGE RATE .. .. .	63
BIRTHS, AND BIRTH-RATE .. .. .	64
DEATHS, AND DEATH-RATE, in whole Parish and in Sub-Districts,	
at ages ; periods of the year ; in sexes ; among illegitimate	
children under five years, &c. .. ...	65
INFANTILE MORTALITY .. .. .	65
DEATH RATE, Monthly : Monthly mean Temperature, &c. ..	67
DEATH, Summary of causes of (Table) .. .. .	67
DEATH, Assigned causes of .. .. .	68
,, " Zymotic Diseases .. .. .	69
,, " " (Septic: Puerperal Fever) .. .. .	70
,, " Parasitic " .. .. .	71
,, " Dietic " .. .. .	72
,, " Constitutional Diseases .. .. .	72
,, " " (Tubercular) .. .. .	73
,, " Developmental " .. .. .	74
,, " Local Diseases .. .. .	76
,, " Violent Deaths .. .. .	79
PUBLIC INSTITUTIONS, Deaths in .. .. .	80
,, " Parish Infirmary and Workhouse .. .. .	80
,, " Outlying Public Institutions .. .. .	82
,, " St. Joseph's House .. .. .	82
,, " Consumption Hospital, Brompton .. .. .	82
,, " Marylebone Infirmary, Notting Hill .. .. .	83
DEATHS " Not Certified " .. .. .	83
INQUESTS .. .. .	84
,, Violent Deaths .. .. .	84
,, Why so many become necessary ? .. .. .	85
METEOROLOGY .. .. .	86
<hr/>	
VACCINATION in 1883 .. .. .	87
,, Officer's Report .. .. .	87
,, Evidence furnished by Medical Officer to Local	
Government Board, as to the Protection afforded	
by .. .. .	87
,, Animal; Calf Lymph .. .. .	90
<hr/>	
SANITARY .. .. .	91



	PAGE.
<b>NUISANCES REMOVAL ACTS</b> , Committee appointed to carry out the	91
"          "          Magisterial action with reference to the	91
"          "          Digest of, and Digests of other Acts prepared by Local Government Board and issued with circular letter to Sanitary Authorities .. .. .	92
"          "          Work of Sanitary Inspectors under the	92
<b>OFFENSIVE BUSINESSES</b> : Proposal to schedule ' Marine Stores ' under Slaughter Houses Act, Sec. 3	94
"          "          The Views of the Metropolitan Board of Works with regard to proposal .. ..	95
"          "          A Judicial decision on the subject ( <i>Passey v. Oxford Local Board</i> ) .. .. .	97
<b>SLAUGHTER HOUSES</b> , The Licensed .. .. .	97
<b>COWSHEDS</b> , The Licensed .. .. .	99
<b>DAIRIES</b> , Cowsheds, and Milkshops Order of 1879 .. .. .	99
<b>PUBLIC HEALTH (DAIRIES, &amp;c.) BILL</b> , 1883 .. .. .	100
<b>BAKEHOUSES</b> : Vestry made Local Authority with respect to, by the Factory and Workshop Act, 1883 .. ..	101
"          The regulation of, by bye-laws .. .. .	103
<b>HOUSES LET IN LODGINGS</b> , Regulations with respect to, as adopted by the Vestry .. .. .	105
<hr/>	
<b>REFUSE</b> , Removal of : Recommendations by the Society of Medical Officers of Health with reference to .. ..	113
"          HOUSE, Removal of : Dust-bins should be abolished ..	114
"          STABLE : Difficulty of obtaining periodical removal of ..	115
<b>NECESSARY ACCOMMODATION</b> , Public Urinals, &c. .. ..	116
<b>PUBLIC BATHS AND WASH-HOUSES</b> , A site obtained for .. ..	117
<b>MORTUARY, PUBLIC</b> , Remarks with regard to the .. ..	117
<b>CORONER'S COURT</b> .. .. .	120
<b>DISINFECTION</b> .. .. .	122
<hr/>	
<b>WATER SUPPLY</b> , Report on, by Professor Frankland .. ..	122
"          "          "          Sir Francis Bolton (Water Examiner) .. .. .	126
"          Deterioration of, in dirty cisterns .. .. .	129
<b>WASTE-PIPES</b> of cisterns, The Medical Officer of the Local Government Board recommends abolition of .. ..	130
"          Communications addressed by the Vestry to the Local Government Board, to the Vestries and to the Waterworks Companies, with reference to ..	131

	PAGE.
GAS, Results of examinations for ascertaining the illuminating power and purity of the .. .. .	134
„ Supply of, for street lighting .. .. .	135
„ Excessive pressure complained of: a proper subject for enquiry .. .. .	136
CONCLUSION .. .. .	136

## APPENDIX.

### STATISTICAL AND OTHER TABLES.

TABLE 1. Estimated Population in 1883 and ten previous years, 1873-82; Number of Inhabited Houses; Gross numbers of Marriages, Births, and Deaths .. .. .	141
„ 2. Birth Rate and Death Rate; Death rates of Children, Deaths in Public Institutions, 1883, and 1873-82 ..	142
„ 3. Deaths Registered from all Causes in 1883 .. ..	143
„ 4. Deaths from Seven Principal Zymotic Diseases; Pulmonary Diseases; Tubercular Diseases; Wasting Diseases of Infants; Convulsive Diseases of Infants; Gross numbers, and Proportion of to 1,000 deaths and to 1,000 population .. .. .	144
„ 5. Deaths in 1883 and in 1873-82 from the Seven Principal Zymotic Diseases: in the Parish, in the Metropolis, and in England and Wales .. .. .	145
„ 6 & 6A. Sanitary Work, Summaries of .. .. .	146-7
„ 7 & 8. Comparative Analyses of Mortality in London and Kensington from certain classes of diseases; Death rates and percentages of deaths, at ages; from Violence; and in Public Institutions, &c., &c. ..	148-9
„ 9. List of streets where fatal cases of the more important of the Zymotic Diseases occurred in 1883 .. ..	150
„ 10. Vaccination Officer's Annual Return ... ..	151
„ 11. Slaughterhouses, Licensed; and Names of Licensees ..	152
„ 12. Cowsheds .. .. .	153



TWENTY-EIGHTH ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH,  
BEING FOR THE YEAR 1883.

---

*To the Vestry of the Parish of St. Mary Abbots, Kensington.*

GENTLEMEN,

In the following report the vital statistics have been compiled for the registration year ended December 29, 1883, and the sanitary statistics for the parochial year ended March 25, 1884.

The vital statistics are calculated upon an estimated population of 168,000, a number arrived at, mainly, on data furnished by the census of 1881.

The year 1883 was a singularly healthy one; the deaths registered were 2,615 only, and 565 below the corrected decennial average. In this total there are included 160 deaths which took place at outlying public institutions, *i.e.*, special and general hospitals &c.: the deaths of non-parishioners at public institutions within the parish are excluded.

The 2,615 deaths were equal to an annual rate of 15·5 per 1,000 persons living—the lowest on record, it being 2·8 below the decennial average, 4·9 below the London rate, (20·4) and 4·0 below the rate in England and Wales (19·5).

The London death-rate was 2.1 below the decennial average, and the lowest on record. The rate in England and Wales, 1.3 below the decennial average, was, with the exception of 1881, (16.9) the lowest recorded in any year since civil registration was established in 1837.

The subjoined table shows the annual death-rate, per 1,000 persons living, in Kensington, in each of the last eleven years, and, for the sake of comparison, the rate in the Metropolis and its several districts, and the rate in all England :—

Death Rate	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	1875.	1874.	1873.
Kensington..	15.5	16.2	16.6	17.8	18.8	20.2	17.3	19.5	19.2	19.4	18.3
London . . . .	20.4	21.4	21.2	21.7	22.6	23.1	21.5	21.9	23.5	22.4	22.4
W.Districts..	19.5	19.9	19.6	19.8	20.9	21.6	19.2	20.9	22.2	20.9	20.5
North „ ..	19.1	19.7	20.6	20.8	21.5	22.0	21.5	22.1	22.1	21.7	21.1
Central „ ..	23.2	23.9	23.2	23.4	26.0	25.1	24.2	24.1	26.2	25.6	25.1
East „ ..	24.1	25.3	24.2	24.3	25.5	25.0	24.5	23.9	25.7	25.5	25.2
South „ ..	19.4	20.7	20.5	21.3	21.8	23.0	20.5	21.2	23.3	21.0	21.7
England and Wales }	19.5	19.6	18.9	20.5	20.7	21.6	20.3	20.9	22.7	22.2	21.0

In his Annual Summary the Registrar-General states that “the extremely low death-rate (in London) was in great part attributable to the comparatively equable temperature that prevailed throughout the year, there having been neither excessive cold in the winter months nor great heat in the summer, so that the mortality both from diseases of the respiratory organs, and from disorders of the bowels, was far below the average.” Again, “had the deaths in 1883 equalled the average annual number in the preceding decade 1873-82, corrected for increase of population, 6,726 persons would have died in the year, who, as it was, were alive at its close.”

The death-rate in the “Outer Ring” of London Suburban districts, with a population slightly exceeding a million persons, was 16.7. The rate in 27 great towns (exclusive of London), having an aggregate population of over  $4\frac{1}{2}$  millions persons was 22.5, ranging from 17.9 at Bristol, to 27.6 at Manchester. In 50 other large urban districts with an estimated population of nearly 2,700,000 persons, the aggregate rate was 20.4, ranging from 15.4 at Barrow-in-Furness (population 56,000), to 26.1 at Ashton-under-Lyne (population 37,600).

Having premised so much by way of introduction it will be well, before proceeding further, to say a few words with respect to the

REGISTRATION DISTRICT AND SUB-DISTRICTS,  
in which we are locally interested.

“ KENSINGTON ” is the title of a Superintendent Registrar's *District*, No. 1 in the Registrar General's London list, which comprises the parishes of Kensington and Paddington. The subjoined table shows the relative areas of the two parishes, and other particulars relating to the census years 1871 and 1881.

	Area in Statute Acres.	Inhabited houses. 1871.	1881.	Increase in 10 years.	Population. 1871.	1881.	Increase in 10 years.
Kensington	2,190	15,735	20,103*	4,368	120,299	163,151	42,852
Paddington	1,251	11,847	13,187	1,340	96,613	107,098	10,285

REGISTRATION SUB-DISTRICTS. For registration purposes Kensington parish is unequally divided into two “*sub-districts*,” viz., “Kensington Town,” hereinafter for brevity designated “Town,” and “Brompton.” The Town sub-district, according to the Registrar-General, has an area of 1,497 acres, and Brompton, 698 acres; total, whole parish, 2,190 acres: in your Vestry's Annual Report, the total acreage is given as 2,245. The population of the town sub-district at the middle of 1883 was about 124,000, and that of Brompton 44,000; total, whole parish, 168,000. The Town sub-district still includes some open spaces, *e.g.*, Holland Park, and fields at Notting Barn Farm, the latter, however, are now being covered with houses. The Brompton sub-district, in which the builder has been active of late years, many of the new houses being of a palatial character, is now nearly covered. The West London or Brompton Cemetery is in this sub-district, and the Kensal Green Cemetery in the Town sub-district: both, unfortunately, are still in active use.

The sub-districts present considerable differences which have to be borne in mind in any comparison of their vital

\* The number 20,103 is taken from the Census return. The rate books show 20,705 occupied and rated premises, many of which, presumably, do not afford living or sleeping accommodation, and therefore would not be enumerated at the Census.

statistics. In Brompton the rich and well-to-do form a large proportion of the population, whilst in the Town sub-district there is a considerable and increasing percentage of persons of the poorer classes. The poor in Kensington, however, possess one advantage over the poor in some other parts of the Metropolis, in that for the most part they live in well-built houses obviously intended for occupation by the lower middle class, miles of streets of such houses being now inhabited by a class of persons who, in the more ancient parts of the Metropolis, find shelter in dwellings that by way of comparison might be called squalid.

THE PARISH OF KENSINGTON is for some local purposes divided into "Wards:" the subjoined table shows the acreage of the wards, their population, and the number of inhabited houses, etc., in 1871 and 1881.

Name of Ward.	Area in Statute Acres.	Inhabited houses.			Population.		Increase 10 years.
		1871.	1881	in 10 years.	1871.	1881.	
St. Mary Abbotts	846	4,781	6,573	1,792	35,696	48,604	12,908
Holy Trinity, Brompton	439	3,224	3,936	712	22,128	26,746	4,618
St. John, Notting hill & St. James Norland							
	906	7,730	9,594	1,864	62,475	87,574	25,099

The rateable annual value of property in the several wards in 1871, was St. Mary Abbotts, £323,992; Holy Trinity £246,716; St. John and St. James, £365,012: total, whole parish, £935,720. In 1881 the returns show for the first and second wards, which cannot now be given separately, a rateable value of £1,078,512 (increase, £507,804); for St. John and St. James, of £501,704 (increase £136,692): total, whole parish, £1,580,216 (increase £644,496).

The subjoined figures will be found interesting as marking the development of the parish in population and wealth, since the beginning of the century.

The Year.	Population.	Rateable value of Property.	The Year.
1801	8,556	£75,916	1823
1821	14,428	93,397	1833
1841	26,834	142,772	1843
1851	44,053	257,103	1853
1861	70,108	444,030	1863
1871	120,299	975,046	1873
1883 (July)	168,000	1,711,683	(April) 1883

## SUMMARY OF VITAL STATISTICS, 1883.

The first fact to be remarked is that, as already mentioned, the Kensington death-rate in 1883 was lower than in any other year of which we possess the vital statistics. And this lower death-rate was due, not to exceptional causes operating at particular periods, but to a good average condition of the public health from the beginning to the end of the year; for in every one of my ordinary reports, thirteen in number, each covering a period of four weeks, I had the satisfaction of recording a rate below the decennial average. The mortality from the "principal diseases of the zymotic class," as a whole, was, as we shall see, far below the average; but the deaths from diphtheria and enteric fever were slightly in excess, and the deaths from whooping cough considerably above the average. The mortality from whooping cough was evenly spread throughout the year, and the same may be said of enteric fever, there having been no marked general autumnal increase, although there was a smart local outbreak to which reference will be made later on. There was one death only from small-pox. Scarlet fever was little prevalent. The deaths from diarrhoea were less than two-thirds the average number corrected for increase of population, and of the 80 deaths from this cause, 48 were registered in eight weeks (24th—31st; June 16th to August 11th). Of the 39 deaths from measles 33 occurred in the second half of the year. In only one period of four weeks (November 3 to December 1), did the deaths from the principal diseases of the zymotic class exceed the average, and then by two only.

The death-rate during the first four weeks of the year was 18·7 per 1,000, the decennial average being 20·7: it was 2·2 below the Metropolitan rate, (20·9) this being 3·8 below the decennial average. The deaths from the principal diseases of the zymotic class were 21 (including seven from enteric fever), or 10 below the decennial average: mean temper-



ature  $41^{\circ}.6$  F being  $3^{\circ}.3$  above the average. There were numerous deaths from puerperal fever at this time, a localized outbreak to which reference will be made later on.

In the second period (5th—8th weeks; January 28 to February 25), the death-rate,  $14^{\circ}.9$ , was  $6^{\circ}.3$  below the average: the Metropolitan rate,  $20^{\circ}.5$ , was  $5^{\circ}.6$  below the average, and  $5^{\circ}.6$  above the Kensington rate. To the “unseasonable” mildness of the weather, and to the copious rains from which in a sense we may be said to have “suffered,” the preservation of many lives, and the consequent lowness of the death-rate, may be ascribed. In this month the deaths from the principal diseases of the zymotic class were 18, or 17 below the average: mean temperature  $42^{\circ}.2$ , or  $3^{\circ}.1$  above the average.

In the third period (9th-12th weeks; February 25 to March 24), somewhat severe weather, (the temperature was  $5^{\circ}.3$  below the average), there was a rise in the rate of mortality resulting principally from an increase in the number of deaths of young children from pulmonary and other diseases. Nevertheless the death-rate, 17 per 1,000, was  $3^{\circ}.2$  below the decennial average and  $6^{\circ}.0$  below the Metropolitan rate, which moreover, was  $1^{\circ}.2$  below the average. The deaths from the principal diseases of the zymotic class were 11, being 18 below the average: mean temperature  $36^{\circ}.6$ ; average of ten years,  $41^{\circ}.9$ .

In the fourth period (13th-16th weeks; March 25 to April 21), the effects of previous severe weather were shown by a considerable rise in the death-rate due to an increase in the number of deaths of young children and aged people, and of persons at all ages from diseases of the respiratory organs. In these weeks the deaths of children under five were 22 more than in the preceding month, and 45 more than in the penultimate month. But although the total deaths showed an increase of 27 over the preceding month, the number was 20 below the corrected decennial average. The death-rate,  $19^{\circ}.1$ , highest recorded in 1883, was  $1^{\circ}.5$  per 1,000 below the

average, and 6.1 below the Metropolitan rate (25.2) which, however, was 1.2 above the average. The deaths from the principal diseases of the zymotic class were 14, being 16 below the average: mean temperature  $44^{\circ}.8$ ; average of ten years, 45.6.

In the fifth period (17th-20th weeks; April 22 to May 19), the death-rate fell to 13.5, being 4.0 below the average, and 7.3 below the Metropolitan rate (20.8) which was 0.5 below the average. The deaths from the principal diseases of the zymotic class were 11, just half the average: mean temperature  $48^{\circ}.8$ ; average of ten years, 49.8.

In the sixth period (21st-24th weeks; May 20 to June 16), there was a slight rise in the death-rate—to 14.7, but it was 1.9 below the average, and 3.8 below the Metropolitan rate, (18.5), this being 0.9 below the decennial average. The deaths from the principal diseases of the zymotic class were 13, being 19 below the average: mean temperature  $58^{\circ}.1$ ; average of ten years, 55.2.

In the seventh period (25th-28th weeks; June 17 to July 15), the death-rate fell to 12.9, being 2.7 below the decennial rate, and 6.7 below the Metropolitan rate (19.6) which was about average. The deaths from the principal diseases of the zymotic class were 26 below the average. The mean temperature in this period  $61^{\circ}.3$ , was the same as the decennial average, and the deaths from diarrhoea, which had been 4 in the preceding period, rose to 22, as against 2 in the corresponding weeks in 1882, when the temperature was  $59^{\circ}.2$ , and the weather rainy. The corrected decennial average number of deaths from diarrhoea for these weeks is 16. At this time a good deal of anxiety was occasioned by an outbreak of *cholera* in Egypt, fears having been entertained lest the disease should extend to Europe and to England: happily the event did not justify these fears. The subject will be referred to again.

In the eighth period (29th-32nd weeks; July 15 to August 11), the deaths from diarrhoea further rose to 26, the mean

temperature, meantime, having fallen to 58·3, (4·1 below the decennial average). The death-rate, moreover, rose to 14·8, but it was 2·7 below the decennial rate, and 5·5 below the Metropolitan rate; this, again, being 2·3 below the decennial average. The deaths from the principal diseases of the zymotic class (39), which in the previous period had been six only below the corrected decennial average, were during the period under notice, as many as 21 below the average (60), notwithstanding the prevalence of infantile diarrhœa.

In the ninth period (33rd-36th weeks; August 12 to September 8), the deaths from diarrhœa (10) were 20 below the average. The death-rate declined to 13·8, being 1·3 below the decennial average, and 3·8 below the Metropolitan rate (17·6), this again being 2·4 below the decennial average (20·0). The deaths from the principal diseases of the zymotic class (21) were 19 below the average (40) : mean temperature 60°·9; average of ten years, 60°·7.

In the tenth period (37th-40th weeks; September 9 to October 6), the death-rate fell to the lowest point touched in 1883, the remarkably low rate of 10·7 per 1,000 having been recorded : it was 3·7 below the decennial average (14·2), and 6·0 below the Metropolitan rate (16·7), this being 2·1 below the average. The deaths from diarrhœa were two only, and the deaths from the principal diseases of the zymotic class (12), were 11 below the average : mean temperature 55°·2; average of ten years, 55°·0.

In the eleventh period (41st-44th weeks; October 7 to November 3), the death-rate rose to 14·9 : but it was 1·2 below the decennial average, and 4·0 below the Metropolitan rate (18·9), which was 2·1 below the average (21·0). The deaths from the principal diseases of the zymotic class were 22, or two below the average : there were four deaths from enteric fever, the disease being prevalent in the south west of the parish : mean temperature 50°·6; average of ten years, 51°·2.

In the twelfth period (45th-48th weeks ; November 4 to December 1), the death-rate further rose to 16·6, but it was 2·7 below the decennial average (19·8), 5·0 below the Metropolitan rate (21·6), this, moreover, being 2·0 below the decennial average (23·6). The deaths from the principal diseases of the zymotic class were 27, or two above the average, this being the only occasion in the year on which the average was reached: measles and scarlet fever were the causes of 9 and 7 deaths respectively. The nearer approach to the end of the year was marked, as usual, by an increasing mortality from chest diseases, the total deaths from these causes, which had been 24, 17, and 37 in the three previous periods, rose to 63, including bronchitis, 45: the mean temperature which in the previous period had been 50°·6, fell to 48°·4, but was 1°·1 above the average of ten years.

In the thirteenth and last of the four-weekly periods, (49th-52nd weeks, December 2-29), the rate of mortality, 17·3, was 3·2 below the average, and 4·0 below the Metropolitan rate (21·3), which, moreover, was 4·2 below the decennial rate (25·5). Measles and whooping cough were the causes of 7 and 6 deaths respectively; the total deaths from the principal diseases of the zymotic class being 21, or 9 below the average. The deaths from chest diseases further rose to 65, including bronchitis 40, the mean temperature (40°·7) having further declined to the extent of 2°·7, but being 2°·4 above the decennial average.

### THE ZYMOTIC DISEASES.

Before entering into details with respect to population births, deaths, &c., I propose to consider the sickness and mortality from the principal diseases of the Zymotic class, and subjects naturally arising out of this topic.

The "Class" of diseases called *Zymotic*, comprises in the Registrar-General's classification of the "causes of death"

six "Orders." The first and second Orders, ("Miasmatic" and "Diarrhœal"), include the diseases which the Registrar-General calls "the seven principal diseases of the zymotic class," still grouping under the generic term "Fever" the three distinct fevers, "Typhus," "Enteric," and "Simple continued." These "seven" diseases have a high interest for sanitarians, arising out of their more or less preventible character; it being customary, moreover, to regard the absence or the prevalence of them, as the case may be, as a test of the sanitary condition of a district. But, without under-rating the importance of this test, there are limitations to its applicability which must be borne in mind if we would draw sound conclusions. What I mean may be best explained by an illustration or two founded on our own local experiences within the last few years. Thus *Measles* was very fatal in 1874 and 1876; the deaths were far above the average; it was the zymotic disease that gave a special character to those years. In 1875 and 1877, on the other hand, the deaths from Measles were below the average; but the lower mortality—evidence of the diminished prevalence of the disease—was due to the excessive prevalence and fatality of the malady in the preceding years. In saying this, I do not, of course, ignore the fact that one epidemic of a zymotic disease may be more severe than another; still less am I forgetful of the fact that the fatality of an epidemic is largely influenced by the measures taken, or the neglect to take measures, for limiting the spread of infection. Again; the rate of mortality in the Metropolis from *whooping cough* in 1881 was the lowest on record; it is not surprising to find, therefore, that in 1882 the disease was excessively fatal.

DIARRHŒA may be cited as an illustration of quite another kind. The mortality from this disease amongst infants was excessive in 1878; the mortality in 1879 was much below the average; but the diminished mortality in the second year had no relation to the excessive mortality in the

first : the conditions were altogether different. The summer in 1879 was cold and wet, and, as always happens in these circumstances, the mortality from infantile diarrhœa was low, just as it is always high when the summer is hot and dry, as it was in 1878. *Per contra*, it may be observed that the conditions that were so favourable to infantile life in respect of diarrhœa, in 1879, were very unfavourable to life, both in the young and in the aged, in respect of another group of diseases, the pulmonary, the mortality from which throughout the year was excessive, as it always is in cold and wet seasons.

Again ; the significance of a high rate of prevalence of *enteric fever* may vary widely in different circumstances : the disease may be constantly present in one district as the result of drainage defects, or a polluted water supply ; in another district its introduction may be due to an accidental pollution of water, or to a specifically contaminated milk supply—and the same observation in regard to milk applies equally in the case of scarlet fever also.

These and like circumstances must be kept in view if we would draw right conclusions from a high or a low rate of prevalence of diseases, particularly in relation to the sanitary condition of a district.

Subject to corrections for local and climatic conditions, and for high rates in previous years, the concurrence of a low zymotic and a low general death rate, furnishes just ground for satisfaction ; and as the general and the zymotic rate in Kensington were both lower in 1883 than in any previous year on record, we are fairly entitled to that satisfaction. It need hardly be said, on the other hand, that a persistently high rate of mortality from zymotic diseases is always a subject for serious consideration. Kensington, as we shall see in due course, has hitherto been in the happy position of having a death-rate from these diseases much below that of the Metropolis generally.

The subjoined table\* sets out necessary particulars of the mortality from the principal zymotic diseases in 1883, together with the decennial average, &c. :—

Disease.	Sub-districts.		In Hospitals.		Total.	Totals in 1882.	Decennial Average.	
	Town.	Brompton.	Town.	Brompton.			Uncorrected.	Corrected for Increase of Population.
Small-Pox ....	0	0	1	0	1	..	20·7	22·5
Measles .....	34	3	2	0	39	77	69·6	75·7
Scarlet Fever..	17	5	5	1	28	62	54·8	59·6
Diphtheria ..	18	2	2	2	24	25	19·6	21·3
WhoopingCough	38	6	0	0	44	119	93·1	101·2
Typhus Fever	2	0	0	0	2	1	3·3	3·3
Enteric ..	16	9	4	1	30	25	23·6	25·6
SimpleCond. "	1	2	0	0	3	6	6·8	7·4
Diarrhoea ....	69	9	2	0	80	61	113·1	123·0
	195	36	16	4	251	376	404·6	439·6

From the above table, we learn that the deaths from the "seven principal diseases of the zymotic class" were 125 fewer than in 1882, and 188 below the corrected decennial average. As usual, the deaths in the Brompton sub-district were relatively fewer, in proportion to population, than in the Town sub-district. The deaths were equal to 96 per 1,000 deaths from all causes in Kensington, (Metropolis, 134), and to a rate of 1·5 per 1,000 persons living, (Metropolis, 2·7), the decennial average being 2·6 in Kensington, and 3·5 in London. By way of comparison it may be mentioned that in England and Wales the deaths from these diseases were 112 in every thousand deaths: the rate was 2·2 per 1,000 persons living, the decennial average being 3·0 per 1,000.

In the 27 large Towns grouped by the Registrar-General with the Metropolis, the zymotic death-rate was 2·8 per 1,000, ranging from 1·0 in Norwich to 4·3 in Newcastle, and in the 50 large Towns coming next in order of importance after the 28, it averaged 2·4 per 1,000; the highest rate, (5·8 per 1,000), being recorded at Dudley, and the lowest rate, (0·8), at Hastings.

\* The figures in the table do not tally with those in the Registrar-General's Annual Summary, because deaths of non-parishioners at public institutions within the parish are excluded, whilst deaths of parishioners in outlying public institutions are included.

The following table shows the distribution of deaths, from the several diseases, of Kensington people, in 13 periods of four weeks, corresponding to my monthly reports:—

PERIOD.	DISEASES.								Total.	Uncorrected Averages ten years, 1878-82.	
Four weeks ended	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Simple Continued Fever.			Diarrhœa.
Jan. 27 ..	..	2	5	3	1	..	7	..	3	21	30
Feb. 24 ..	..	1	1	1	5	..	5	..	..	13	30
Mar. 24 ..	..	..	..	1	6	..	1	..	3	11	29
April 21 ..	..	3	..	4	5	..	2	..	..	14	30
May 19 ..	..	..	3	..	4	..	3	..	1	11	22
June 16 ..	..	..	1	4	3	..	..	1	4	13	31
July 14 ..	..	..	1	..	2	..	1	..	22	26	31
Aug. 11 ..	1	3	3	1	4	..	1	..	26	39	60
Sept. 8 ..	..	6	..	1	2	1	1	..	10	21	40
Oct. 6 ..	..	2	1	4	2	..	1	..	2	12	23
Nov. 3 ..	..	6	4	2	3	..	4	1	2	22	24
Dec. 1 ..	..	9	7	2	1	1	2	1	4	27	25
Dec. 29 ..	..	7	2	1	6	..	2	..	3	21	30
	1	39	28	24	44	2	30	3	80	251	405

I now proceed to make a few observations with regard to each of the above-mentioned diseases.

**MEASLES.** The deaths were 39, about half the decennial average: 33 were recorded in the second half of the year, and 36 took place in the Town sub-district. The deaths from this cause in 1882 were 76, the same as the decennial average. In the majority of the fatal cases, some inter-current disease, *e.g.*, pneumonia, bronchitis, etc., a complication of the original malady, was the immediate cause of death. Little care is taken by parents among the poorer classes to prevent the spread of measles; it is considered as inevitable as teething, and they reason that there is less trouble in the long run if all the children have the complaint at one time. It must, however, be admitted that it is difficult to prevent measles from spreading, it being highly infectious from an early stage, if not from the beginning.



The circumstances, moreover, in which the poor in London live—several families occupying one house and using a common staircase—almost preclude the possibility of isolation. More care, perhaps, might be taken to protect the sufferers against the secondary affections, which, as already stated, are generally the immediate causes of death.

WHOOPIING-COUGH which was the cause of 119 deaths in 1882, proved fatal to 44 persons only last year, all but 6 in the Town sub-district; the corrected decennial average being 101. Reference was made, above, to the little care taken by parents in the humbler walks of life, to prevent the spread of measles: the observation is perhaps even more generally true in regard to whooping-cough, the danger of this always distressing malady being unappreciated by the poor, who, in the engrossing struggle for existence, find little time to devote to the care of their children in respect of an ailment which they have come to regard as at once inevitable and not very serious. Often enough the fatal event comes as a surprise, being due to some complication, *e.g., convulsions or bronchitis*, the secondary causes of many deaths: few deaths, indeed, are returned from whooping-cough alone. In some instances, intercurrent diseases, of the chest for example, are unavoidable, but they are often the result of want of care in the treatment of the little sufferers—though I would by no means imply that such want of care proceeds from indifference, still less from unkindness. The little ones are not, perhaps cannot be, confined to a single room, kept at an even temperature: they catch cold; the “cold” and the “cough” are not differentiated; medical treatment is not sought until the child is obviously very ill, and, when it is obtained, the patient is but too frequently beyond the reach of help.

SCARLET FEVER was the cause of 28 deaths, against 62 in 1882, the corrected decennial average being 60. Of the 28 deaths 22 belong to the Town sub-district, and 6 only to Brompton. Six of the deaths took place in hospitals, to

which 90 out of 231 recorded cases were removed for treatment. Of the 231 recorded cases 154 belonged to that part of the parish north of Uxbridge Road, and 77 to the remainder of the parish south of that road. The recorded cases in 1882 were 319. In many instances the occurrence of the disease was concealed until recovery had taken place, when the cases were reported in order to obtain gratuitous disinfection; and frequently when the existence of the disease became known at an early period, we were unable to persuade parents to consent to the removal of their children to hospital. In some cases, when it was too late, the refusal came to be lamented. A certain number of patients were well isolated at home, and their removal to hospital was deemed unnecessary, but proofs were not wanting that, even when the patients had what might be fairly described as "proper lodging and accommodation," due care was not taken to prevent the spread of the disease, unless it be the fact that no amount of care suffices to prevent its spread when once it has found admittance into a susceptible family. In not a few instances, where removal was obviously necessary to security, the greatest difficulty was experienced in obtaining the parents' consent, but in no case did we have recourse to the compulsory powers of removal, such as they are, which the Sanitary Act of 1866 confers.

It need hardly be said that most of the cases were of children, usually of school age, and 86 of the sufferers had been attending school up to the time of the attack. Every effort was made, by co-operation with school-teachers and visitors, &c., to prevent the disease from spreading, and no child was allowed to go to school from an infected house. The existence of the disease was revealed often by the registration of a death, and it is the fact that its spread was commonly the result of keeping patients at home under circumstances that rendered nugatory any attempts at isolation.

From time to time cases come to light which help to

explain the apparently mysterious spread of infectious diseases. For instance, one of the sanitary inspectors received information of an outbreak of scarlet fever in the family of a verger at a church, the man continuing his daily duties as usual: he would not allow the children to go to hospital, so I communicated with the clergyman, who required him to take lodgings away from home. In another instance two children of a letter carrier had been ill for several weeks: the cases were concealed, and the man was about to resume duty, on their recovery, when the Sanitary Inspector happened to hear that a third child was ill, and on revisiting the house, shortly after he had left it, having been led to believe there was no other case, he found a sick girl concealed in another room. Children from this house were attending school, and the Inspector saw a young school girl nursing one of the sick children. The illness in this family should have been reported to me by the Medical Officer to the Post Office, in conformity with the requirements of the instructional circular issued by the Department, to which I made reference in my last annual report (page 74), but I only received intimation of the illness when our services were required for disinfection. The Inspector, however, was informed that the Medical Officer, who had certified, so as to enable the letter carrier to remain off duty, and receive pay, week by week, did not visit the house, (another doctor being in attendance), until the two children were reported to be well; and then it was that he communicated with me with regard to the disinfection: the third case, above referred to, had been kept from his knowledge likewise.

DIPHTHERIA, which was unusually prevalent in London in 1883, was the registered cause of 24 deaths in Kensington, 3 above the corrected decennial average: 20 in the Town sub-district and 4 in Brompton. Not all deaths classified to diphtheria are really caused by diphtheria: cases of scarlatina anginosa, are sometimes erroneously certified as diphtheria; and we had illustrations of the fact in 1883. On the other

hand, it sometimes happens that true diphtheria is not recognised in the primary stage: the nature of the disease does not become known until paralysis supervenes. Cases of croup, again, are sometimes described as diphtheria, and *vice versâ*. Diphtheria, it may be added, does not often show a disposition to become epidemic, or even endemic, in the metropolis. Occasionally, however, when the disease occurs as a result of insanitary conditions, it will spread in the family: thus, for instance, there were five cases in a family living in rooms over a stable at Ruston Mews, Notting Hill, the first case being due to defective drainage, and the following cases to infection. The first case was concealed and fatal: its existence became known upon the registration of death only, and it was found impossible to persuade the parents to let the other children—for all the sufferers were children under fourteen—be removed to the parish infirmary. The Asylums Board, it may be mentioned, do not treat diphtheria in their hospitals.

**FEVER.**—The deaths from the three diseases grouped as “fever,” were 35, viz., 23 in the Town sub-district, and 12 in Brompton; the decennial average, corrected for increase of population, being 36·3.

**Typhus.** Two deaths from this highly infectious disease were registered, viz., that of a manufacturer of parquet flooring, aged 54, at Lancaster Road, after five days illness, and that of a school girl, aged 12, at St. Ervan’s Road, Notting Hill. I was unable to obtain any definite information as to origin in the first case: the circumstances of the second case were peculiar, and strongly suggestive of error in diagnosis. The deceased was a daughter of an upholsterer, being a “half-time” pupil at Buckingham Terrace Board School, and lived in service at Hammersmith. She was sent home unwell November 1, and next day was taken to a private “Dispensary.” She was subsequently attended at home by the “Dispensary” doctor till she died, on the 7th, having been visited five times in as many days. The doctor,

who had said nothing about typhus during the illness, refused to certify the cause of death, and called for an inquest, because, in some former case, in connection with the same "Dispensary," I had felt it my duty to express doubt as to the accuracy of a diagnosis of typhus. A *post-mortem* examination was held, and after hearing the medical evidence the jury returned a verdict of death from "*typhus*." No precautions were taken to prevent the disease from spreading, for even after the *post-mortem* the father was not informed of the supposed nature of the illness, and only became aware of it at the inquest. I communicated with the Medical Officer of Health for Hammersmith, who informed me there had not been any case of typhus at the house where the deceased had resided. I thought it probable the child had died from brain trouble, *e.g.*, *Meningitis*, for her father stated that she was much excited and anxious in connection with an approaching school examination, and that, until she became delirious, on the third day preceding death, she constantly engaged in calculations, recitations, &c. Some of her school fellows were allowed to see and kiss her body after death, but no ill consequences resulted, nor did any other case of typhus occur in the house or locality. This case, as narrated in my fourteenth report, (December 3, 1883, page 125), attracted some attention in connection with a question then agitating the public mind, *viz.*, whether educational "over-pressure," under the stringent provisions of the new code, might not be acting injuriously upon dull and backward children? It happened curiously enough, that the death of another girl of the same age, and a pupil of the same school, was in the same report referred to as having been certified from "over application to study—*Meningitis*." The report was forwarded to the Vice-President of the Council, and I was informed that an enquiry was made by an Officer of the School Board, who arrived at the conclusion that the deaths were not due to "over-pressure;" but what sort of an enquiry he made, or what were his qualifications for making such enquiry, or how he arrived at his conclusion, I do not know.

*Enteric Fever* was the registered cause of 80 deaths, 20 in the Town sub-district and 10 in Brompton; five occurred in hospitals: 12 took place in the first eight weeks of the year. The disease was scarcely so prevalent as usual in the autumn; but there was a local outbreak of considerable importance; the district particularly affected being south of Kensington Road, and west of Earl's Court Road. The cases in this outbreak, 29 in number, were in 19 houses in 12 streets: the sufferers included 12 of children under 11 years of age, 7 of persons between 14 and 20, and 10 of persons above 20. The disease was restricted to houses of well-to-do people, and there were not wanting grounds for suspicion that in the great majority of the cases it might have been spread through the agency of milk: the cases, however, were singularly few in proportion to the number of persons receiving milk from the same dairy. Every facility for investigation was placed at my disposal, and most diligent enquires were made in different parts of the country, but without anything being revealed to throw light on the origin of the outbreak; which, moreover, excepting perhaps in one or two instances, did not appear to be explicable by sanitary defects in the infected houses. House to house visitation was made, and numerous medical men, hospital authorities, medical officers of health, &c., were communicated with, but to little purpose. The endemic speedily died out, but it was the cause of five deaths.

*Simple continued Fever* was the cause of 8 deaths, two of them in the Brompton sub-district.

DIARRHŒA.—The deaths from diarrhœa, 80 in number, were 48 below the decennial average corrected for increase of population; 71 of them took place in the Town sub-district, and 9 in Brompton; 58 were registered in twelve weeks ended September 8. As usual, the deaths were chiefly of young children, viz., 74 under five years of age, including 65 under one year. Excepting in 1879, when the deaths were 71, and in 1882, when the deaths were 61

only, such a low rate of mortality from diarrhoea has not been recorded for many years: it was the result of the generally low temperature that prevailed in the summer months. The immediate causation of this infantile scourge has never been clearly made out: it is hoped that the enquiry delegated by the Local Government Board to their Inspector, Dr. Ballard, will ultimately throw light on the subject.

**SMALL-POX.**—Eight cases only of small-pox were recorded during the year, viz.:—three in the district north of Uxbridge Road, and five in the remainder of the parish south of that road: two of the cases were imported. Six of the sufferers were removed to Hospital; in one case removal was not necessary, and in the remaining case, that of a housekeeper at Hyde Park Gate, the patient left the parish. This case led to a second in the same house, the only fatal case in 1888, the sufferer having died in hospital. She was a lady's maid, and evidently contracted the disease from the housekeeper who had been visited, at her place of service, and at the mistress's request, by a medical man, who formed the opinion that she was not suffering from any infectious complaint. Two days later, however, the patient called at the doctor's house and he then recognised small-pox, told her of the fact, and advised her to send to the parochial authorities, on her return home, in order that she might be removed to hospital. Unfortunately the doctor did not communicate with the family nor with me, and the woman left the house on the same day, for Hammersmith, it is alleged, and in an omnibus, without saying one word about the nature of her illness: she could not be traced. The lady's maid stated in hospital, that the housekeeper had had spots upon her body like her own, and the doctor, when questioned admitted that the housekeeper was suffering from small-pox. The lady's maid, doubtless, was infected before the diagnosis in the first case was made, nevertheless it is to be regretted that the doctor did not acquaint the lady of the house with the nature of the illness, for there is no knowing what mischief

may have resulted from the housekeeper's wilful infraction of the law : it is certain that at an epidemic period such an exposure might have led to a wide diffusion of small-pox.

#### WESTERN DISTRICT (LATE FULHAM) HOSPITAL.

No case of small-pox was admitted into this hospital in 1888, but the use of it for cases of fever was continued throughout the year. From the report of Mr. Sweeting, the Medical Superintendent, we learn that on December 31, 1882, there remained 101 patients : during 1883, 286 were admitted, 273 discharged, and 21 died, leaving 43 under treatment at its close. Of the admissions 197 were of scarlet fever, 18 of enteric fever, 13 of typhus fever, and 8 of other diseases. Of the 21 deaths, 15 were from scarlet fever, 2 from intercurrent measles in scarlet fever cases, 3 from enteric fever, and one from inflammation of the kidneys. The mortality from scarlet fever was 6·7 per cent, and from enteric fever, 14·6 per cent. Kensington contributed the largest number of cases ; 44 per cent. of the whole number, Fulham coming next with 30 per cent. Of the scarlet fever cases, 58 per cent were under 10 years of age. The mortality, greater amongst males than females, was heaviest in those under five years of age. No deaths from typhus fever occurred ; 5 cases only were treated ; the remaining cases were transferred to another hospital. The average duration of stay in the hospital of scarlet fever cases, was 78 days, and of enteric fever cases, 72 days. During the year 34 patients were placed upon the visiting list, of whom 21 died. They were visited by 78 visitors, who paid altogether 258 visits. It is to be presumed that the visitors escaped infection, as not one of them was subsequently admitted with fever.

THE FULHAM HOSPITAL CASE.—The litigation in this case has been terminated by a compromise, a sum of money having been paid to the plaintiffs. The Deed of Arrange-



ment provides that 75 "*mixed*," or 50 *severe* or *confluent* cases of small-pox may be treated in the hospital at one time, but is understood that the managers will not receive more than 40 at any one time if they can help it. The hospital site, I understand, is to be divided, the larger, southern, portion containing five pavilions, (150 beds), will ultimately be a fever hospital: the smaller portion, three pavilions, with certain additional buildings, will be a small-pox hospital. A wall running from east to west will separate the two hospitals, as far as practicable: each hospital will, I presume, have an assistant Medical Officer under the direction of the Medical Superintendent in charge of both hospitals. Not being myself a convert to "aërial infection" theory as developed in Mr. Power's report on this hospital, I should not fear the reception of fifty severe cases of small-pox, provided due care in administration, to prevent spread of infection, were observed; but considering that not a half—barely a quarter—of 50 *severe* cases were in the hospital when the "notable outburst" occurred in January, 1881, the upholders of that theory may well look forward with apprehension to the practical realization of the new arrangements which, however, have been sanctioned by the Plaintiffs in the action, and are based on the recommendations of the Hospitals Commission. The injunction having been dissolved, patients can be admitted from any distance, but the hospital will be utilized chiefly for the Western districts, and especially for the parishes of Kensington, Chelsea, Fulham, and Hammersmith.\*

Considerable improvements, by the provision of permanent accommodation for nurses, and for administrative purposes generally, are being carried out at the hospital. New entrances also are in course of construction, and altogether the establishment, when finished, will be of a very complete character.

---

\* The Hospital was re-opened May 17th, 1884, for the reception of small-pox cases. *Vide* page 38

**THE HAMPSTEAD HOSPITAL CASE.**—The long and costly litigation in this *cause célèbre* has been terminated by a compromise entered into between the Asylums' Board and the principal plaintiff, whose property has been purchased by the Managers, who will be at liberty to treat a fixed number of small-pox cases in the hospital, presumably the same number as at Fulham, *i.e.*, 75 mixed, or 50 severe or confluent. A much needed improvement has been effected, by the purchase of a right of way to the hospital, along the Fleet Road, and the approach to the hospital, which previously was unsatisfactory, is now all that could be desired.

### **HOSPITALS COMMISSION.**

In my last annual report (pages 28-43 inclusive), I referred to the recommendations of the Royal Commission for making provision of hospital accommodation for the infectious sick, and generally for dealing with epidemic diseases. I propose now to state what has since been done by the Managers of the Asylums Board, with the view of giving effect to the recommendations : and first as regards

**SMALL-POX HOSPITAL ACCOMMODATION.** The Commission urged the desirability of hospitals being provided for small-pox cases in isolated situations on the banks of the Thames, or in floating hospitals on the river itself. The Managers have provided both, for in addition to the *Atlas* which can make up more than two hundred beds on an emergency, they have purchased the twinship *Castalia* which has been adapted for the reception of about 200 patients. These vessels with their tender, the *Endymion*, are moored at Long Reach, and opposite the moorings the Managers have purchased upwards of eight acres of land for laundry, mortuary, and general purposes, and have erected a pier and landing stage. This land is within a short distance of Darenth Asylum, in the grounds of which, it will be remembered, a camp hospital for convalescent small-pox cases

was erected and carried on with remarkable success in the summer of 1881.

The Managers have also purchased the "Gore Farm Estate," about 135 acres, in the immediate vicinity of Darenth Asylum, and on a part of it they established, in March 1884, a camp hospital, to meet a great emergency, there having been a very considerable increase in the number of small-pox cases in the eastern district of the metropolis. But the Managers intend to make permanent provision for convalescent small-pox cases on this site, and they have matured arrangements for the erection of a hospital, a step rendered necessary by the restrictions imposed on them by the compromises already referred to, in regard to the North Western and Western Hospitals, and by the recommendation of the Commission that not more than 30 to 40 small-pox cases should be treated at one time in any hospital within the metropolitan area. During the epidemic of 1881, the Managers had accommodation at their disposal in the metropolis for 1,000 small-pox cases, and the camp hospital at Darenth provided for about 650 cases; 1,650 beds in all, the maximum number occupied at any one time in the course of that not very extraordinary epidemic. The Managers as at present situated, and apart from the camp, possess accommodation for 650 cases only, viz.:—250 beds in hospitals on land, (fifty in each of the five existing hospitals), and about 400 on shipboard, so that there would be a deficiency to the extent of about 1,000 beds in the event of an average epidemic.

To supply this deficiency, the Managers propose, with the sanction of the Local Government Board, to erect a hospital for 1,000 patients in ten groups of buildings, each to afford accommodation for 100: six only of the groups to be erected in the first instance, but with all the administrative buildings necessary for the complete hospital. Each of the groups will be subdivided into four wards of 25 beds each, with a day room, &c., and infirmary accommodation

will be provided for 60 patients in two large wards of 24 beds each, and two small wards, or isolation rooms, of six beds each, for the treatment of cases of erysipelas or other complications occasionally attendant upon small-pox.

The permanent provision, already made or contemplated, falls short of the requirements of the metropolis as estimated by the Hospitals Commission, who were of opinion that there should be sites and buildings which could without difficulty be made capable of receiving 2,100, or by special exertion 2,700, small-pox patients. The sites are adequate in mere acreage, as on the land at Darenth any necessary number of tents could be pitched on an emergency; but the Local Government Board have judiciously suggested for the consideration of the Managers the desirability of an endeavour being made to secure an additional site, to the west or south west of the metropolis, which would be available for an additional hospital for convalescent small-pox patients, in view of the exigencies of a serious epidemic, and taking into account the necessities of London as a whole.

**FEVER HOSPITAL ACCOMMODATION.** The Commission were of opinion that there should be sites and buildings which could be made capable of receiving 3,000 fever patients. "Of the 3,000 cases those in the earlier stages, probably about half, should be provided for in the near neighbourhood of London; the other half—the convalescents—in two or three country hospitals." The beds now available for treatment of fever cases at the five existing hospitals are about 1,050, the recommendation of the Commission, that these hospitals should "become in the main fever hospitals," having been carried into effect. These hospitals the Commission thought it probable would, "with the aid of another hospital which appears to be indispensable for the east of London, ..... fully accommodate all the cases requiring London treatment."

The Managers resolved in the first instance to give effect to the recommendation to provide another hospital for the

east of London, and the sanction of the Local Government Board was accorded to the proposal, but the Managers afterwards rescinded the resolution, and with the approval of the Board they have acquired about 36 acres of land, known as the Chaseville Park estate, at Winchmore Hill, nine miles north east from Charing Cross, on which they propose to erect a hospital, mainly for convalescing and convalescent fever cases; but they have not pledged themselves to exclude acute cases, should the London accommodation prove inadequate at any time. Whether the Metropolis will be sufficiently provided with accommodation for acute cases without an additional hospital, time only can show, but there can be no doubt as to the need of a country retreat for convalescents, such as the "Northern District Hospital" will supply. This hospital has been designed to provide for about 500 patients in buildings similar to those to be erected for convalescent small-pox cases at Darenth: but, unlike Darenth, it is intended to be in permanent occupation, and it is expected to relieve the pressure upon the other hospitals north of the Thames. It is probable that the Managers will ultimately decide upon purchasing a site for convalescing fever patients south of the river, so as to carry out the recommendations of the Hospitals Commission, as it is obviously necessary, if we are to be prepared against all emergencies, that there should be hospitals or, at the least, sites on which to make temporary provision for patients in the acute, and in the convalescent, stages, and so situated, moreover, as to be accessible from all parts of the Metropolis north and south of the Thames.

**AMBULANCE SERVICE.**—The Hospitals Commission recommended that "the hospital authorities should have the entire control of the ambulances, by which all other modes of conveyance should be as far as possible superseded." In order to give effect to this recommendation, the Managers have taken steps with the view of providing ambulance stations at three of their London hospitals, powers for this

purpose having been conferred on them by section 16 of the Poor Law Act, 1879. The station in connection with the Western District Hospital, with which we are more immediately concerned, is approaching completion, and will provide stabling for 15 horses, coach-house for 15 ambulances, together with all necessary accommodation for drivers, nurses, &c., on a site 220 feet by 76 feet. The Managers, desirous of obtaining ambulances of the best possible construction, offered prizes for designs, and finally made choice of a pattern which it may fairly be hoped will prove satisfactory.

**AMBULANCE STEAMERS.**—The “Red Cross,” specially constructed for the conveyance of small-pox patients to the ship hospitals, and to the camp, is now in use, and a second and larger vessel is in process of construction. A river steamer has been purchased for temporary use, and will probably be made available ultimately, for conveying recovered patients from the hospitals on the home journey.

**WHARVES.**—By section 6 of the Diseases Prevention (Metropolis) Act, 1888, the Managers were empowered to obtain land, with approaches, &c., for three wharves or landing places within the metropolis, and one beyond the metropolis, to facilitate the conveyance of the sick to land or ship hospitals down the river. Effect has been given to this enactment by the purchase of land as follows:—A site at Rotherhithe, (“Acorn Wharf”), for the service of the southern districts of the metropolis, and a site at Blackwall, (“Brown’s Wharf,”) for the service of the north-east district. Negotiations are in progress for the purchase of a site near Wandsworth Bridge, to serve as a transfer depôt for the use of the Western districts, including Kensington. The land at Long Reach, off which the hospital ships are moored, is the fourth or extra metropolitan site. At each wharf a pier has been, or will be, erected, from alongside which patients will be taken from the land ambulances to the steamers, and at which convalescents will disembark on their return

home from the ship hospitals or camp. Under the arrangements matured by the Managers, the treatment of a small-pox patient may be said to commence at the moment of removal, for he is taken charge of at the bedside by a skilled nurse, who attends upon him in the ambulance and in the steamer. Hitherto, the service so carefully organized, has worked well, and it must be allowed to be a great improvement on that which, in the course of a short time, it will have entirely superseded. Large as are the expenses being, or to be, incurred, it will probably be felt that the Managers have exercised a sound discretion in making provision for all contingencies, quietly and systematically, while as yet there was no serious epidemic: they have been found prepared and so panic has been avoided now that the emergency has arisen.

It is almost superfluous to add, perhaps, that the Managers have been hampered, more or less, at every stage of their proceedings, through local opposition, based generally on fears that hospitals, ambulance-stations and wharves alike, must needs depreciate the value of adjacent property and injuriously affect the health of the inhabitants. Subject to proper precautions being adopted I do not think the latter danger is likely to arise, and the first named will probably turn out to be ill-founded.

From what has already been stated it will appear, that when the arrangements in progress, or contemplated, shall have been completed, the Managers will have provided a sufficiency of hospital accommodation for infectious diseases for all classes of the population. It is to be remembered, moreover, that by the Diseases Prevention (Metropolis) Act, 1888, the relief to be afforded in the Managers' Hospitals will not pauperise the recipients of it, for I hold it impossible that the provisions of section 7 should not be made permanent. It only remains, therefore, to contrive arrangements for facilitating the admittance of patients without the formalities which now frequently interpose delay when delay

is so dangerous. I contended so far back as 1875, that the certificate of any duly qualified medical man should be accepted as evidence of the nature of a dangerous infectious disease, (*e.g.*, small-pox, scarlet fever, enteric fever, &c.), and I am of opinion that the Medical Officer of Health, equally with the Relieving Officer, should be authorised to sign the order for the admittance of a patient.\* To all practical intents and purposes the Managers are now a sanitary or *quasi*-sanitary authority, acting for the whole Metropolis, and arrangements should be concerted for bringing them into close and definite relations with the local sanitary authorities, the vestries and district boards, with a view of facilitating the admittance of the patients, who, as already explained, will be transferred to the hospitals in the Managers' own ambulances. And this without the necessity of contracts between the Managers and Sanitary Authorities, (under the Poor Law Act, 1879), for the maintenance and treatment of *non*-paupers; for the hospitals, although conducted by a Poor Law Authority, are no longer *pauper* establishments. Certain expenses incurred by the Managers in the treatment of the sick, viz., for maintenance, clothing, &c., are at present repayable by the Guardians of the parish or union from which the patients are admitted, and it can matter nothing whether such repayments are made by the Guardians, as Poor Law Authority, or by the Vestry as Sanitary Authority. So long, however, as the elective Managers are chosen by the Guardians exclusively, it will probably be found convenient to continue the existing arrangements, but I need hardly say that I concur in the recommendation of the Hospitals Commission, which indeed merely endorsed my views, long ago sanctioned by your Vestry, that the sanitary authorities should be represented at the Board. I am strongly of opinion, however, that it will

---

\* Shortly after this portion of the report was in type, more than I had ever ventured to ask, was conceded by the new arrangements of the Asylums Board, as set out in the "Regulations for the removal of cases of small-pox and fever by the land and river ambulances." The subject is referred to again further on.



ultimately be found desirable, *quâ* provision of hospital accommodation, to make the Board a purely sanitary authority, and to treat the Metropolis as one District, throwing every expense to be incurred by the Managers on a metropolitan common fund. I submitted a recommendation to this effect to the Managers, in the early part of 1877, in a communication subsequently reprinted in my Annual Report for 1876-7, (at page 14), under the heading, "Hospital accommodation for the non-pauper infectious sick."

### THE USE AND INFLUENCE OF HOSPITALS FOR INFECTIOUS DISEASES.

In my last Annual Report, (pp 47-65 inclusive) I discussed under the above heading, the question raised by Mr. W. H. Power's Report on Fulham Hospital, whether the poison of small-pox can be transmitted unchanged through the atmosphere so as to infect susceptible persons at considerable distances? So momentous are the issues involved in a correct solution of this question, which, practically, Mr. Power has answered in the affirmative, that I thought it my duty to state the grounds on which I had ventured to doubt the accuracy of Mr. Power's conclusions, and to express a hope that his views would not be generally accepted as correct, without further investigation and more decisive evidence than any as yet forthcoming.

The opportunity for such further investigation has already arrived, and the duty of making it has devolved upon Mr. Power.

In March, of the present year, an epidemic of small-pox, commenced in the eastern districts, and the extension of the disease westward, necessitated the reopening of Fulham Hospital at the middle of May. Towards the end of June, a considerable number of small-pox cases having occurred in the Borough of Chelsea, the Local Government Board directed Mr. Power to resume enquiry respecting the dis-

tribution of the disease, in the constituent parishes, Chelsea, Kensington, and Fulham, including Hammersmith. Mr. Power, thereupon, appealed to the Medical profession for precise information of all small-pox, in the districts above mentioned, since the commencement of the present year, (1884), such information to include the facts as to each case, mild or severe. Mr. Power's further report will be awaited with interest, none the less because he will have had the opportunity of testing the validity of his own conclusions with full knowledge of the objections raised thereto by those who have felt themselves unable to accept, as proved, the theory of distant aërial infection.

The new inquiry, however, will be conducted under circumstances differing considerably from those of 1881, inasmuch as not more than fifty cases may now be treated in the Hospital at any one time, whereas in 1881 as many as 300 beds were continuously occupied for weeks together. The great bulk of the 300 patients, it is true, were in the stage of convalescence which is not regarded by Mr. Power as being infective in any thing like the same degree as the acute stage, if at all: still, there were as many as 80 acute cases in the wards at one time and over a considerable period. It is noteworthy, however, that when these acute cases were at a maximum there was no marked prevalence of small-pox in the "special area," (a circle of a mile radius having the Hospital for its centre), it being the fact, moreover, that when the "notable outbreak" of January, 1881, took place, there were not more than fifteen acute cases in Hospital, only 55 of such cases in all having been admitted in a period of five weeks, ending Jan 17th, which was the last of the five days on which the persons were infected, whose illnesses, commencing Jan. 26-30, (inclusive), made so strong an impression on the mind of Mr. Power. It was this smallness of numbers at the critical time, that led me to submit to the Royal Commission the view that, if the aërial infection theory as developed by Mr. Power were true, "a

hospital, however small, must be a public danger, even at a distance of 1000 feet and upwards ;” and that the attempt to stay the plague would be all but hopeless under the land-hospital system. In these circumstances, the very cautious scheme of the Commission, which contemplates the retention of some 30 or 40 *acute* cases in each of the Town hospitals, could not be justified—still less, the compromise of litigation, under the terms of which the Managers are at liberty to receive into the Fulham Hospital as many as 50 “severe or confluent” cases at one time.

In each epidemic of small-pox since 1877, when the hospital was first used, there had been some cases in the “special area” prior to the admission of any considerable number of patients, as my monthly reports show. Curiously enough, the disease was later in making its appearance in the special area in 1881, when hospital cases accumulated more rapidly than in any previous year. In the present year, when the hospital cases have been fewer than ever before, the reverse, as I shall show, has been the case.

I do not propose in the present report to enter in a controversial spirit into the question of ærial infection, and I have made the above remarks solely by way of introduction to a statement of known facts with regard to small-pox prevalence in the days prior to, and immediately succeeding, the re-opening of the hospital, (May 17), with the view of showing, that whatever may be the influence of small-pox hospitals on surrounding districts, Fulham Hospital could not have originated the Borough epidemic in 1884, inasmuch as the disease had appeared in many streets before the hospital was opened, and some three-score of cases had been recorded while as yet there were not ten cases in the wards.

The cases recorded in Kensington in the twenty weeks ended May 17, on which day the hospital was re-opened, were 12, five north and seven south of Uxbridge-road.\* In

---

\* There were about as many cases in Chelsea, but none in Fulham, apparently, prior to this date.

the next four weeks, ended June 14th, the recorded cases were 38, 10 north and 28 south of Uxbridge-road. The 10 cases in the north district occurred in eight houses, in eight streets; the 28 cases in the south district, in 24 houses, in 22 streets, nine of the patients being domestic servants.

By June 14th, 44 cases had been admitted into the hospital, 26 from Kensington, 10 from Fulham, and 8 from Chelsea. Fifteen Kensington cases were infected in four days, May 19–22, the atmospheric conditions on those days being as follows:—wind easterly for the most part, and blowing therefore, in the direction of Fulham; horizontal movement of air below the average of 16 years, to the extent of 90, 69, 119, and 15 miles per diem, on the four days respectively; temperature 54°. 8 Fahr., barometer 30.03 in., no ozone; no rain; degree of humidity 62, complete saturation being represented by 100. On June 14 there were 23 cases in hospital, but not more than 10 cases had been in the wards at the date of infection of any of the 40 cases. Eleven of the 40 cases were infected before the hospital was opened, in addition to any Chelsea and Fulham cases, and to the 12 Kensington cases recorded prior to that event.

It may be further mentioned, that in the four weeks, June 15–July 12, there were 52 cases recorded in Kensington, 30 north and 22 south of Uxbridge-road, (not one of them within the quarter-mile central circle of the special area), and that the total of cases admitted into the hospital by July 12, was 127 viz., from Kensington 61, from Fulham and Hammersmith 38, and from Chelsea 28. Of these 127 cases 30 only were in hospital July 12, all or nearly all of the remainder, (97), having been transferred to the Hospital Ships or Hospital Camp. The maximum number of patients in hospital on any one day was 32. The 52 Kensington cases occurred in 38 houses, in 28 streets: in 22 of the streets there had been no previous case. Eight of the 22 patients in the south district, were female domestic servants.\* On

\* In the next fortnight, July 12–25, there were only three cases in Kensington, all north of Uxbridge Road, and two of them infected by a previous case.

July 4, there were 1,378, and on July 18 only 1172, cases in hospital including nearly one thousand in the Camp. The maximum number in the epidemic of 1881 was 1650, viz., 1000 in land and ship hospitals, and 650 in Camp.

I am indebted to Mr. Sweeting, the Medical Superintendent of the hospital, for an analysis of the admissions, showing the position in relation to the hospital, of the houses newly invaded by small-pox, after Mr. Power's plan, the special area being divided into zones. From this it appears that between May 17-July 12—so far as hospital patients are concerned—the disease invaded 108 houses, of which 146 are in the special area and 57 beyond the special area, or more than one mile from the hospital. Of the 46 houses in the special area, 2 are in the  $\frac{1}{4}$  mile central circle, 20 in the  $\frac{1}{4}$ – $\frac{1}{2}$  mile ring, 20 in the  $\frac{1}{2}$ – $\frac{3}{4}$  mile ring, and 4 in the outer or  $\frac{3}{4}$ –1 mile ring. By July 12, the hospital having been open 8 weeks, one case only, (that of an unvaccinated girl), had been recorded in Ifield Road, the street in Kensington nearest to the hospital.

The facts as to age-distribution of cases are much the same as in previous epidemics, many children having been attacked in the district north of Uxbridge road, and few in the south district. In the south district, on the other hand, female domestic servants, as usual, formed a large proportion, (81·5 per cent.), of total cases. The well-to-do classes have been little affected; artisans, &c., have suffered more than common labourers or the poorest classes.

With few exceptions the cases have been removed to hospital, several of the patients having walked in. There were other cases of exposure, particulars of which are recorded in my monthly reports. Occasionally the disease was spread owing to modified cases of small-pox having been mistaken for chicken-pox: a few cases were imported. Eight patients were admitted from one house and at one time—the fruits of a concealed case. This quantity of small-pox, it may be added, did not lead to the spread of the disease in the poor street whence it was removed, although seven of the cases

were in the house for two days, five of them for four days, three of them for five days, two of them for eight days, and one of them for nine days.

### **CHOLERA.**

Three deaths were registered from English Cholera. One of them, which caused very unnecessary alarm, was that of a homeless man of intemperate habits, who died after a few hours illness at the parish infirmary, having been removed in a moribund state, after some regrettable but unavoidable delay, from a stable at Notting Hill. The death took place in July, at a time of anxiety due to the prevalence of Asiatic Cholera in Egypt, and to fear lest the disease should be imported into this country. A great sensation was excited by the reports of the case in the daily papers, and I was credibly informed that it was the immediate cause of arrivals from England being quarantined in Spain and Portugal.

The Local Government Board took active measures in view of the possible introduction of Cholera at the time mentioned, and although nothing occurred to justify the fears that had been aroused, we had satisfaction for the trouble and expense incurred, in the evidence afforded of our preparedness for instant action in case of an outbreak.

The Board issued in the first place two "Orders" with a covering explanatory letter for the guidance of Port Sanitary Authorities, who of necessity constitute the first line of defence, and subsequently they communicated with all other sanitary authorities throughout the kingdom. At the instance of the President a conference was held between the Medical Officer of the Board and the Metropolitan Medical Officers of Health, the conclusions arrived at being, that, to safeguard the metropolis against Cholera, "increased attention should be devoted by sanitary authorities and their officers to the ordinary means for improving the sanitary condition of the several districts," and that "the attention of the Local Government Board should be

called to the necessity of careful supervision of the sources of water supply in the rivers, and of the storage reservoirs, &c.”; on the ground that if cholera should be imported into the metropolis it might be spread, as on a former occasion, through the agency of the water companies.

The “Diseases Prevention (Metropolis) Bill,” of which I gave a full account in my last annual report, (page 66), became law in August, its nominal object being to make “better provision as regards the Metropolis for the isolation and treatment of persons suffering from cholera and other infectious diseases.” Section 2 constitutes the Managers of the Asylums Board, equally with the Vestries and District Boards, a “Local Authority” under the Diseases Prevention Act, 1855, and enables them to utilize their buildings, ambulances, staff, &c., for the execution of powers and duties conferred or imposed on them under both the Acts. Immediately after the passing of the Act the Managers undertook to provide a limited amount of temporary hospital accommodation for patients of both sexes, and for the whole Metropolitan area, irrespective of parochial boundaries. They not merely agreed to utilize any of their buildings, ambulances, &c., and to arrange for the temporary use of empty buildings, or of small plots of land whereon to erect huts, to be under the charge of their own officers, but they also negotiated arrangements with the governing bodies of general hospitals, and with Boards of Guardians, for the employment of such spare accommodation in Hospitals, Workhouses and Infirmaries, as could be made available either for the reception of patients in infected district, or for the accommodation of ordinary inmates of such establishments who could be transferred to cholera-free districts so as to furnish room for the sick in the vacated buildings in cholera-stricken districts.

Many of the Boards of Guardians, as well as the governing bodies of voluntary hospitals, signified their willingness to co-operate with the Managers in making the needful provision of hospital accommodation; the Metropolis, therefore,

would have been found in better case than in any previous epidemic, had cholera unhappily reached our shores.

The design in these proposed arrangements was to constitute the Managers a first line of defence, only, for instant action on the appearance of the disease; for it was distinctly intimated that they would not undertake the exclusive provision of hospitals, and the Local Government Board clearly laid it down that the course the Managers were prepared to adopt, would in no way absolve the sanitary authorities from the duty imposed on them by the Diseases Prevention Act, 1855, should it become necessary by "Order" to put in force the provisions of that Act. In other words the Vestries and District Boards would have had to provide hospitals for the sick in their several districts, as well as places of refuge for the as yet unattacked inmates of infected houses, when the sick could not be removed to hospital, whether from the gravity of the illness, or owing to the want of accommodation within one mile, which is held to be the furthest distance to which a cholera patient can be properly removed. The regulations issued by the Board in 1866, it may be remembered, imposed on the Vestries, as "local authorities," the duty of making arrangements for the prevention and treatment of the disease, including the medical visitation of poorer houses for the purpose of detecting cholera and diarrhœa, the supply of medical attendance and nursing, and of medicines and disinfectants. The expenses incurred by the Managers form a charge upon the Metropolitan Common Poor Fund.

[ADDENDUM, July, 1884. Asiatic Cholera broke out at Toulon, France, in June, and shortly afterwards appeared at Marseilles. In view of the probability of the disease being conveyed to this country, the Local Government Board, (under date, July 8th), forwarded for the information of your Vestry, as sanitary authority, copies of a Memorandum prepared by their Medical Officer, on the "precautions to be taken against the infection of Cholera." The memoran-



dum is substantially the same as that sent out in July, 1883. In view of all eventualities the Board were desirous that your Vestry's attention should be again called to the question of taking such measures of precaution as the sanitary condition of the parish might demand. I may mention that in a special report, (No. 9, July 25), on "Precautions against Cholera," I dealt with the subject in 1883, and pointed out what I conceived to be the relative duties devolving upon the central authority, (Local Government Board), the local authority, (your Vestry), the representatives of the law, (the Justices), and the people themselves, in the dreaded emergency. In concluding that report I said, and I now repeat, that individual householders might render invaluable service by reporting to your Vestry whatever nuisances may come to their knowledge, or under their observation, and not less by carrying into effect, each in his own house and family, the advice submitted to each one in Papers respectively entitled—(a) Suggestions for Preventing the spread of Infectious Diseases; (b) General Sanitary Notice, and (c) Precautions against Cholera.

I have already, (at page 44), described the arrangements the Asylums Board made in 1883, for providing hospital accommodation for cases of Cholera in all parts of the metropolis, should the disease unhappily come amongst us. A conference between the Medical Officers of Health and Representatives of the General Purposes Committee of the Board, proposed by the Committee, was held July 17, "with a view to the consideration of several points which arise in connection with the carrying out of the Diseases Prevention (Metropolis) Act, '1883, and upon which unity and uniformity of action seem to be advisable."]

#### COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

In several of my Annual Reports I have referred to the need of legislation to secure immediate information to

Sanitary Authorities of the occurrence of illness from some of the more dangerous infectious diseases; and in the Report for 1880, (page 44), I gave a full account of the steps that had been taken by means of legislation, in the shape of "Local Acts," to secure such notification in certain provincial towns and boroughs. The subject was continued in my Report for 1881, (page 40), and I stated that, as the desirability of the extension of such legislation in the shape of a Public Act was generally acknowledged, it only remained for the Government to introduce a measure for the purpose of securing notification. In the Session of 1882, several Private Bills providing for "Police or Sanitary Regulations" were introduced at the instance of provincial Corporations, and referred to a Select Committee, of which Mr. Slater-Booth, an ex-President of the Local Government Board, was the Chairman. In their Report on the "Sanitary Regulations" the Committee stated, with respect to "Notification," that they had "little difficulty in forming the opinion that the time had arrived when provisions of law on this subject may be sanctioned, at least in the more important Urban Sanitary Districts." Encouraged by this report Mr. Hastings, who was a member of the Committee, with Sir Trevor Lawrence, Dr. Farquharson and Mr. Brinton, introduced a Bill in the Session of 1883, "To provide for the better Notification of Infectious Diseases," drawn on the lines sketched by the Committee in a "Model Clause," which will be found at page 44 of my Annual Report for 1881. Without entering into details I may state that the Bill proposed to throw upon the householder, and upon the medical attendant, equally, the duty of notifying cases to the Medical Officer of Health—the so called "dual system." The gentlemen named are active members of the Social Science Association, the Health Section of which body has taken a prominent part in promoting legislation to secure Notification. The Bill was, in fact, the Bill of the Association, which, moreover, organized a Deputation to the Local

Government Board in support of it. The deputation comprised, in addition to members of the Association, numerous medical and other persons known to take an interest in the question. The President, Sir Charles Dilke, in his reply, said that there was no difference of opinion at the Board as to the advantageous nature of the powers asked for where they were possessed. The evidence from the various localities where they had been worked was ample on that head. They were not, however, quite ready to adopt the Bill, or to support it in its existing form, there being great fear, in going at all in advance of public opinion, of producing reaction. They would be disposed to agree to general legislation in some form, legislation to facilitate the application of the desired provisions by local authorities. The Bill went beyond this, and it was not the opinion of the Board that the time had yet come to give universally the compulsory powers proposed, by absolute legislation. After a few years' experience of the working of such provisions in the districts where they had been applied, and in the other districts which would try them very shortly; then, after investigation, the matter might be extended still further. The Board were disposed to give local authorities who want compulsory powers, the means of dealing with infectious diseases at once, without the necessity of applying for a local Act; either by means of a general Act, which they could bring into force themselves, or else by giving them power to make bye-laws for that purpose.\*

---

\* The Medical Officer of the Board in his Annual Report for 1881-2 wrote on this subject as follows: "Seeing how greatly the usefulness of Sanitary Action in respect of infectious diseases must depend upon early knowledge of its presence, I have had no hesitation in advising that this power, (*i.e.* of obtaining immediate information of the existence of infectious disease in any house), might properly be possessed by any Sanitary Authority who wanted it, and who, having made adequate arrangements for securing isolation and disinfection for the district, was prepared to put to effectual use the knowledge which a system of disease-notification would afford." It may be remembered that the Select Committee on "Sanitary Regulations," (House of Commons, Session 1882), recommended that, "in any future amendment of the Public Health Act, powers," (*i.e.*, to secure "notification,") "should be extended to all Urban Sanitary Authorities, or at least that means should be devised for clothing them with such powers on application."

The President expressed his willingness to support a proposition to refer the Bill to a Select Committee. The Bill was strongly opposed on the second reading, and the House having been counted out the measure was dropped for the Session. Prior to the reception of the deputation, the President had received a so-called "Vigilance Association," which desired to enlist his influence in opposition to the Bill, on the ground of its interference with the "liberty of the subject," indifferent or oblivious to the fact, that the most democratic communities are precisely those which are the most stringent in exercising such interference with individual liberty when it is necessary for the general good. The President subsequently received the Parliamentary Bills Committee of the British Medical Association, who urged "That the local authorities should not have the power of imposing the duty of compulsory notification on medical practitioners." The Committee in taking this step, was acting upon a resolution carried, at the Jubilee Meeting of the Association, held at Worcester in 1882, to the effect:—

" That this meeting earnestly desires compulsory notification of infectious diseases, but it wishes to express its opinion that the compulsion to notify should be placed upon the householder, as his duty as a citizen, and not upon the doctor."

Urgently as compulsory notification may be required, it is probable we shall have to wait for a more settled state of political affairs before the Government can be expected to deal with the subject. Meanwhile it is well to be reminded that the Sanitary Authorities of London have expressed themselves unequivocally in favour of the principle of notification, and with pardonable satisfaction it may be mentioned that their action was taken under the lead of your Vestry.\*

---

\* *Vide* Annual Report for 1882, page 69 *et seq.*

## VOLUNTARY NOTIFICATION OF INFECTIOUS DISEASES.

Prevention of the spread of infectious diseases being a chief duty appertaining to my office, constant efforts have been made to obtain, by "voluntary notification," information of the occurrence of such diseases, and it will not be out of place here to mention the sources from which such information is now obtained.

1. By virtue of an arrangement entered into between your Vestry and the sub-district registrars, I receive notice of every *death* from the graver infectious diseases, (small-pox, scarlet fever, diphtheria, typhus, enteric and simple continued fevers), within a few hours after registration. When a death from an infectious disease has occurred, there is always a probability of finding cases of illness in the same house or in the locality, and such discovery not unfrequently results from the Sanitary Inspector's visit. Occasionally the registration of a death is unduly delayed—sometimes, apparently, with the object of temporary concealment of the cause of death: it would be well, therefore, if registration within a limited period, say twenty-four hours, were made compulsory.
2. The Relieving Officers, by direction of the Board of Guardians, report all cases of the graver infectious diseases that come within their cognizance, and generally these are cases that have been, or are about to be, removed to the hospitals of the Asylums Board, admission to which, (although practically denied to no person), can only be obtained at present on the order of a relieving officer, or the master of a workhouse.\*
3. Similar information is given by the Resident Medical Officer of the Kensington Dispensary, by request of the Committee of Management.
4. Medical men favour me occasionally with information of cases, especially when they desire assistance in order to get patients, (*e.g.*, domestic servants), removed to hospitals; or when they want the assistance of the disinfecting staff.
5. The Chief Commissioner of Police has instructed Divisional Surgeons that on the occurrence of infectious disease being reported in the residence of a police officer, the Medical Officer of Health is to receive due notice of the fact, and a few such cases have been notified.
6. The Postal Authorities have taken a similar step, having intimated to the numerous medical officers of the department throughout the country, that if in their several districts it be not already the rule to give notice of infectious diseases to the Sanitary Authority, it would be well that such a rule should be introduced in the case of Post Office Servants.

---

\* This rule has been relaxed in operation, since the above portion of the report was in type, *Vide* page 57.

A few cases have been notified, but the rule appears to have been not very strictly carried out.

7. In my annual report for 1877 I referred to an important step then lately effected through the action of the London School Board which, at my request, had instructed the Superintendents of Divisions throughout the Metropolis, to desire the "Visitors" to report to the Medical Officers of Health all cases of infectious disease that should come to their knowledge in the discharge of their official duties, which take them frequently into the homes of the poorer classes. To facilitate the transmission of this information by the Visitors, your Vestry authorized me to prepare a form for their use. This was done; but, I must say, the resolution of the Board, hitherto, has not been attended with all the hoped-for results. The Board, moreover, at one time, showed a disposition to recede from the position they had taken up, for on my calling their attention to the omission on the part of the Visitors to report cases, the "divisional members," to whom my communication had been referred, simply agreed that the Visitors should report cases when they had reason to suppose that no duly qualified medical man was in attendance. "When a duly qualified medical man has charge of a case, they are not prepared to do more than take steps for seeing that proper precautions are taken at the Schools." This decision, if final, would have been regrettable, the Board, however, has recently passed a resolution directing *Teachers* also, to inform the Medical Officer of Health of the case of any child excluded from the school on account of its showing symptoms of an infectious disease, or of its coming from a house where an infectious disease exists. The result of this new departure will be awaited with interest. Some of the teachers in our part of the Chelsea Division, I may mention, had occasionally reported cases, as a result of an application I made to all of them in 1879, at which time I furnished them with printed forms for the purpose.
8. Clergymen, and District Visitors, occasionally report cases of sickness.
9. The Resident Medical Officers of St. George's and St. Mary's Hospitals report the admission of cases, or the application of inadmissible cases, of infectious illness from houses in this parish.
10. Occasionally anonymous communications are the source of information, for I have not felt at liberty to disregard such communications, which have frequently proved accurate.

In one or another of these ways some hundreds of cases come to our knowledge in the course of every year. How many never get reported at all it is impossible to say, but from the fact that the majority of the fatal cases are concealed until after registration of death, it may be inferred that unrecorded cases of recovery are numerous.

**THE RESULTS OF VOLUNTARY NOTIFICATION.**—With the view of informing myself upon this point, I have recently investigated the statistics of mortality for twenty-four years, in respect of the “principal diseases of the zymotic class;” comparing the total number of deaths in the first half-period, (1859-70), before I entered upon the duties of Medical Officer, with the number in the second half-period, (1871-82), during which we have had the inestimable advantage of hospital accommodation.

The results of the investigation are set out in the following tables, showing the number of deaths of Kensington people, (at home and in hospitals), in two periods of twelve years, respectively, from the diseases in question.

**First period (1859-70) ; without notification and without hospitals :—**

DISEASES.	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	Totals.
Small Pox.....	11	18	2	0	49	5	18	10	29	4	6	8	160
Measles.....	42	29	53	30	83	100	52	40	19	84	27	70	629
Scarlet Fever ..	53	86	57	110	89	90	31	28	35	170	106	198	1053
Diphtheria ....	..	..	..	..	..	..	..	..	..	..	9	14	23
WhoopingCough	11	56	37	54	22	56	37	28	68	34	71	55	529
Fever.....	17	25	32	51	54	60	77	33	46	52	42	46	535
Diarrhœa .....	72	35	66	24	54	63	104	112	78	113	108	154	983
Totals .....	206	249	247	269	351	374	319	251	275	457	369	545	3912

Yearly average..326

**Second period (1871-82) ; with voluntary notification and with hospitals :—**

DISEASES.	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	Totals.
Small Pox.....	120	68	1	0	0	8	84	24	24	11	55	0	395
Measles.....	64	43	38	121	23	128	54	53	60	75	67	77	803
Scarlet Fever ..	95	29	10	32	83	59	31	77	51	105	36	62	670
Diphtheria ....	11	14	11	26	23	17	10	20	26	22	8	25	213
WhoopingCough	72	77	44	45	107	124	34	185	93	95	85	119	1080
Fever.....	48	42	41	52	29	36	27	33	23	33	31	32	427
Diarrhœa .....	129	110	145	112	107	126	99	181	71	128	101	61	1370
Totals .....	539	383	290	388	372	498	339	573	348	469	383	376	4958

Yearly average..413

Summary of preceding tables with corrections for increase of population :—

Diseases.	Actual number of Deaths in 1st period 2nd period 1859-70. 1871-82.		Estimated No. of Deaths in 2nd period, 1871-82, corrected for increase of population.	Increase (corrected) in 2nd period, 1871-82	Decrease (corrected) in 2nd period, 1871-82.	Nett decrease (corrected) representing estimated saving of lives in 2nd period, 1871-82.
Small Pox....	160	395	261	134	..	..
Measles .....	629	803	1029	..	226	..
Scarlet Fever & Diphtheria }	1076	883	1761	..	878	..
Whooping Cough	529	1080	865	215	..	..
"Fever" .....	535	427	875	..	448	..
Diarrhoea .....	983	1370	1608	..	238	..
	3912	4958	6399	349	1790	1441

\* The average population in the first period of twelve years, (1859-70), was 90,000, and in the second period, (1871-82), 147,300.

It will be noticed that after making correction for increase of population there was an increase in the number of deaths, in the second period, in respect of two diseases, small-pox and whooping-cough. Of whooping-cough I shall only say that it is one of the diseases of which we rarely hear until it has proved fatal, its occurrence never being notified. Small-pox, on the other hand, is more frequently notified than any other disease, and yet the deaths show an increase of 134. This disease, however, was severely epidemic in four years out of the twelve, (1871-82), whereas in the first period of twelve years, twice only did the annual number of deaths exceed twenty. Measles exhibits a decrease, although, like whooping-cough, it is not notified; but I am not aware that we are entitled to claim any credit for the reduced mortality. The diminished diarrhoeal mortality may be attributed, in considerable measure, to the coldness of recent summers, and may therefore be regarded as accidental. It is when we come to scarlet-fever and enteric fever, that the real grounds for satisfaction appear, these being the diseases which admit—the latter of mitigation by improved sanitary arrangements, and the former of control by speedy isolation of the sick in hospitals. And what do we find? That the deaths from "fever" in the second period were 108 fewer than in the first period, without correction for increase of population, and 448 fewer after such correction; the reduction in respect of scarlet fever being, without



correction, 383, and with correction, no fewer than 1053. But it will be observed that in the first ten years of the first period no deaths from diphtheria were recorded, although the table commences in 1859, the year in which diphtheria was first registered as a separate disease. I am unable to account for the omission, there being no records extant, except upon the somewhat improbable assumption that no deaths from diphtheria were registered in Kensington in those ten years. I have thought it fair, therefore, to bracket scarlet fever and diphtheria, in the two periods, respectively, for comparison; and thus, adding the deaths from diphtheria, only 23 in the first period, and so many as 213 in the second period, to the deaths from scarlet fever, we observe in the second period an absolute reduction of 193 in the number of deaths from the two diseases, the reduction corrected for increase of population being 878.

Taking the "seven" principal diseases of the zymotic class together, there appears a corrected reduction in the number of deaths in the second period of no fewer than 1441. In other words, had the rate of mortality from these diseases been the same in the second period, 1871-82, as in the first period, 1859-70, there would have died 1441 persons in the twelve years more than did die; or 120 *per annum*—the difference between the actual annual average number, (413), and the number corrected for increase of population, (533). The zymotic death rate, I may add, which in 1859-70 was 3·6 per 1,000 persons living, fell to 2·8 per 1,000 in 1871-82; the deaths from these diseases, moreover, which in 1859-70 were 18 per cent. of total deaths, were only 15·4 per cent. in 1871-82.

Other causes doubtless, besides notification, contributed to bring about this satisfactory result, and we must not forget, as regards enteric fever, that this disease, under improved sanitary arrangements, has "continuously and notably declined in England during recent years." Chief among these causes, and one, in my judgment, even superior

in efficacy to notification, is the provision of hospital accommodation by the Asylums Board, under the provisions of the Metropolitan Poor Act, 1867. So highly, indeed, do I value this provision, that, were I offered a choice between hospitals and notification, I should unhesitatingly choose hospitals; for this reason, among others, that provision of hospital accommodation leads, almost inevitably, to voluntary notification; whereas, even compulsory notification has comparatively little value if hospital accommodation be wanting.

**INCREASED FACILITIES FOR REMOVAL OF THE INFECTIOUS SICK.**—In 1880 the Board of Guardians manifested their desire to promote the removal of cases, by instructing the Relieving Officers to abstain generally from taking any steps for obtaining payment in cases sent to the Metropolitan District Fever and Small-pox hospitals.

The carrying out of these instructions has been attended with the happiest results, not a single case having since been prevented from going to hospital, on grounds of inability or unwillingness to pay for maintenance and treatment. Having always held that the removal to hospital of the non-isolated infectious sick, at whatever cost to the public, is justifiable on economical grounds, it is a source of satisfaction to me to know that this view is shared by the Guardians equally with your Vestry. Practically, moreover, nothing is lost in money through the enlightened action of the Guardians; for, as the result of an enquiry made in view of the Conference of Sanitary Authorities held at the Town Hall in March, 1881, I ascertained that less than £60 had been paid to some twenty Boards of Guardians, in respect of 79 patients who contributed something towards their own maintenance, out of 3,100, the number of patients removed to hospitals in a little less than one year. Objection had been raised to the principle of "free hospital treatment," on the ground that many patients contributed towards their maintenance a sum considerable in the aggregate, it being contended, also, that patients able to pay should be made to

pay. Even had this been the case, and I have shown that it is not, sanitarians, who know the terrible consequences that so often result from the home-treatment of infectious diseases when the sick cannot be isolated, would have been ready to justify a sacrifice in money rather than imperil life. It was more difficult to satisfy the representatives of the ratepayers—those who hold the strings of the public purse—of the good policy of such a course, but the facts and figures I submitted to the Conference brought conviction, and it was resolved unanimously, “that payment for the assistance given in hospitals to persons removed thereto for isolation, by the Sanitary or the Poor Law Authority, should not be enforced,” and, “that the giving of such assistance should not entail on the recipient the loss of any social or political status.” By the passing of the Diseases Prevention (Metropolis) Act, 1883, relief in the hospitals has been depauperised. The Hospitals Commission, moreover, recommended, (in 1882), that “it is desirable in the public interest to attract to the hospitals, even by the bribe of gratuitous treatment, all who will go thither;” thus completely justifying the views for which I have so long contended.

The above enlightened step for promoting the removal of infectious cases, as a means of protecting the community, is not the only one for which we are indebted to the Guardians.

The Asylum Board Hospitals, as is well known, are poor law institutions, although, as mentioned above, admittance into them no longer pauperises the recipients of assistance, few of the patients, moreover, being of the pauper class.

For some years, as I have before stated, I have contended that the medical certificate of a duly registered practitioner should be accepted as evidence of the nature of an infectious disease, (small pox, scarlet fever, &c.), in the case of a patient proposed to be removed to an asylum-hospital, and that the medical officer of health should be authorized to make the necessary “order” for the reception of the patient. In the

Order of the Local Government Board, relating to admission of patients, the certificate of a district or workhouse medical officer, and the order of a relieving officer, or a master of a workhouse, are alone recognized. Although my efforts in this direction appeared to produce little result, the discussion to which they gave rise, from time to time, was doing good, and paving the way to a better state of things. In our own parish, as a result, a practice grew up, with the tacit approval of the guardians, of accepting a properly authenticated certificate of any registered medical man, as evidence of the nature of an infectious illness, without waiting to obtain the confirming certificate of the district medical officer. By this plan several hours were sometimes saved in effecting the removal of a patient.

A still more notable step, in the same direction, but equally informal, had just been taken by the Ambulance Committee of the Asylums Board, to which I cannot refer without unfeigned satisfaction, as it concedes even more than I had ventured to ask, and will bring about the removal of infectious cases with the utmost attainable rapidity. The committee, determined that no avoidable delay should take place, have resolved to receive any case of small-pox or fever into a Board-Hospital, upon the direct application of any duly registered medical practitioner, and without a previous order from a relieving officer. Applications are required to be made at the chief offices of the Board, Norfolk Street, Strand, by telegram, during the hours telegraph offices are open, on week-days only. The offices are in telephonic communication with all the hospitals, and immediately on receipt of a telegram an order is sent to the Superintendent of the Ambulance Station of the district, who, within a few minutes, despatches an ambulance with a nurse to remove the patient. The details of the scheme are set out in the "Regulations of the Board for the removal of cases of small-pox and fever by the Land and River Ambulances," (June 21, 1884). Information of cases so admitted is sent to the Clerk of the

guardians, and I have suggested that information should be forwarded to the medical officer of health also, in order that he may take proper measures for disinfection, &c.

Such an admirable plan was impossible of execution while the ambulance arrangements were under the control of numerous local authorities, but it became practicable when the Board decided to undertake the duty of removing the sick over the entire district of the Metropolis. In this connexion I may mention that the Western District Ambulance Station, adjoining the Hospital at Fulham, being now in use, applications for removal of cases to that hospital between the hours of 8 p.m. and 8 a.m., and all day on Sunday, are required to be sent to the Ambulance Superintendent direct. To facilitate the working of the new system, I have suggested to the Guardians the desirability of their offices being placed in direct telegraphic or telephonic communication with the Ambulance Station, and with the chief offices of the Board, and this suggestion is now receiving their consideration.

I communicated the above information as to the removal of cases to the medical men throughout the parish, and supplied them with copies of a suitable form of certificate, &c. I also informed them that your Vestry would reimburse the cost of the telegraphic application for removal in the case of any patient unable, through poverty, to pay for it.

#### INTERRUPTION OF EDUCATION AT ELEMENTARY SCHOOLS RESULTING FROM THE PREVALENCE OF INFECTIOUS DISEASES.

—It is customary at Board and other elementary schools, to refuse admission to children from houses where infectious disease exists, even when the rejected children are not members of the family affected. The propriety of this practice is beyond question, and to its existence we may reasonably ascribe the fact that on no occasion has it been found necessary, in this parish, to close a school on account of the prevalence of infectious disease among the pupils. The "notification of infectious disease," when it shall have been secured by legislation, and the increased powers of

removal to hospital of non-isolated cases of infectious sickness, for which Sanitarians are asking as a correlative measure, will probably have the desired effect of limiting the occasions on which it will become necessary to close schools on account of epidemics, *e.g.*, of scarlet fever. Sanitary authorities under the provisions of the new Education Code\* have greater powers than they formerly possessed of closing schools—powers which it need hardly be said should be used with great care and discretion. It has been my constant endeavour to obtain the assistance of school teachers, and this plan has often been attended with excellent results. The regrettable fact connected with the existence of infectious diseases, in relation to education, is the length of time during which children, themselves in good health, but living in infected houses, are often kept away from school, to the curtailment of the short period devoted to education; and yet at the same time they may be meeting their school fellows at play, thus to a certain extent neutralizing the precautions taken at school. It is obvious that fresh and even stringent legislation is needed to enable us to cope with this difficulty, *viz.*, for the compulsory removal of the sick when necessary to secure isolation.

### **POPULATION, INHABITED HOUSES, &c.**

The population of Kensington, estimated to the middle of the year, was in round numbers, 168,000 : males 67,330, and females 100,670; excess of females, 33,340. The population of the Town sub-district was, approximately, 124,000, and of the Brompton sub-district 44,000. The natural increase during the year, represented by the excess of births over deaths registered, was 1,615 : an estimated further in-

---

\* "The Managers must comply with any notice of the Sanitary Authority of the district in which the school is situated, requiring them for a specified time, with a view to prevent the spread of disease, either to close the school, or to exclude any scholars from attendance, subject to an appeal to the Department, if the Managers consider the notice to be unreasonable."

crease of 935 represents the balance of immigration over emigration; total increase, 2,550. It is always difficult to estimate with accuracy the number of persons living in a large and populous place like Kensington, still in the process of growth. The best available test, perhaps, is the number of inhabited houses: if these show an increase, an increase in the number of people may be inferred, and *vice versa*. In July, 1888, there were some 21,080 occupied and rated premises, an increase of 122 as compared with July, 1882. The number of persons to a house at the census in April, 1881—taking the return of houses from the rate-book—was 7·89, a number which multiplied by 21,080 gives 167,819 as the population estimated to July. In places having a stationary population, *e.g.*, parishes which have no available building land, and which are not undergoing obvious depopulation, as by the pulling down of the houses of the poor to make room for mansions, warehouses, &c., the birth-rate may serve as a guide in estimating a population. But this test is of little practical avail in a place like Kensington. We shall see, moreover, that with a constantly-increasing population, not merely our birth-rate, but the absolute number of births also has declined considerably of late years, fewer children having been born last year than in 1874, when the population was smaller by thirty thousand. The most remarkable feature, however, in connection with the population of Kensington, one, moreover, which, to a large extent, accounts for the small and diminishing birth-rate, is the inordinate excess of females. It was thought astonishing when the census of 1871 revealed a majority of 22,000 females, but that majority has now grown to upwards of 38,000. The excess is due in no slight degree to the fact that, Kensington being a rich parish, a very large number of female domestic servants are employed.

It is almost needless to say that females are in excess in the general population: in London the excess is about 18 per cent., in Kensington it is about 50 per cent.

The subjoined Tables show the relative numbers of persons of each sex at the Census 1881, grouped according to age, (a) in the entire parish, (b) in the Kensington Town Sub-district, and (c) in the Brompton Sub-district.

(a) ENTIRE PARISH.

Ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
.....97,700	8753	15361	23391	19789	12606	8339	5472	2901	965	115	8	97,700 Females.
.....65,451	8832	13501	12452	10793	8397	5549	3619	1748	502	58	—	65,451 Males.
of } 32,249	—79	—1860	10939	8996	4209	2790	1853	1153	463	57	8	32,249 } Excess of Females.
of } 163,151	17585	28862	35843	30582	21003	13888	9091	4649	1467	173	8	163,151 } Total of both sexes

(b) KENSINGTON TOWN SUB-DISTRICT.

Ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
.....70,134	6952	12141	15640	13453	8996	6031	3968	2168	701	79	5	70,134 Females.
.....50,007	6969	10986	9205	7936	6404	4009	2669	1310	386	43	—	50,007 Males.
of } 20,127	—17	—1155	6435	5517	2592	1932	1299	858	315	36	5	20,127 } Excess of Females.
of } 120,141	13921	23127	24945	21389	15400	10130	6637	3478	1087	122	5	120,141 } Total of both sexes

(c) BROMPTON SUB-DISTRICT.

Ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
.....27,566	1801	3220	7751	6336	3610	2308	1504	733	264	36	3	27,566 Females.
.....15,444	1863	2515	3247	2857	1993	1450	950	438	116	15	—	15,444 Males.
of } 12,122	—62	—705	4504	3479	1617	858	554	295	148	21	3	12,122 } Excess of Females.
of } 43,010	3664	5735	10998	9193	5693	3758	2454	1171	380	51	3	43,010 } Total of both sexes



Kensington is still in process of development by building, but to a very moderate extent compared with past years—1861-70 for example. Owing to the increased and ever increasing value of property, its rateable value rises higher and higher, and out of proportion to the actual increase in the number of houses. The following table brought up to date exhibits the growth and wealth of our great parish since the Metropolis Local Management Act came into operation in 1856:—

	1856	1883	Gross Increase in 27 years.
Estimated number of In- habited Houses (as per rate books) .....	7,600	21,030	13,430
Population .....	57,000	168,000	111,000
Rateable Value of Pro- perty .....	£308,000	£1,711,495	£1,403,495

The increase in all respects, within the last twelve years, the period over which my official experience extends, is not inconsiderable, as the subjoined figures will show.

	1871	1883	Increase in 12 years.
Estimated number of In- habited Houses, July, (as per rate books) .....	15,395	21,030	5,635
Population .....	121,000	168,000	47,000
Rateable Value .....	£935,720	£1,711,495	£775,775

The above figures demonstrate a transcendent growth and speak for themselves; nevertheless, attention may be called to the fact that in little more than a quarter of a century the rateable value of property more than quintupled and that in the last twelve years the mere increase was double the total in 1856. The population and the number of

inhabited houses increased nearly threefold in 27 years; the increase in the last decade alone attaining the proportions of a large city.

In the nature of things the material growth of the parish must cease ere many years, and there will be an arrest to the increase in population, for there will be no room for additional houses; but property in some parts of the parish will probably continue to increase in value long after the population shall have become comparatively stationary. Even now the rateable value has attained such proportions as to be exceeded by that of the cities of London, Liverpool, Manchester, and Bristol only. At present the population of Kensington is to that of London about 1 to  $23\frac{1}{2}$  and the rateable value 1 to  $16\frac{1}{2}$ .

#### MARRIAGES AND MARRIAGE RATE.

The marriages in 1888 were 1,616, or 143 more than in 1882. Of these there were celebrated—

By the Church (76.9 per cent. of total marriages)	1,248
At Roman Catholic places of worship	- - 107
At other Nonconformist places of worship	- - 76
At the Superintendent Registrar's Office	- - 190
Total	<u>1,616</u>

The marriage rate, *i.e.*, persons married per 1,000 of the population, was 19.5. The marriage rate in the country generally was 15.4 per 1,000, against 14.4, 14.9, 15.1, and 15.4 in the four preceding years. The marriage rate declined steadily from 17.6 in 1873 to 14.4 in 1879, which was lower than any previous year on record: since 1879 the recovery has been slow, but continuous. The marriage rate in London, in 1888, was 17.8, a lower rate, the Registrar General states, than any previously recorded, the nearest to it having been 18.0, which was the rate in 1879. The marriage rate

reached its highest point in 1865, when it was 22·8, and gradually declined from that date, though with some fluctuations, until in 1883, as before mentioned, it had fallen to 17·8.

### BIRTHS AND BIRTH RATE.

The births of 4,230 children were registered in 1883; males, 2,162; females, 2,068: 3,374 in the Town sub-district, and 856 in Brompton, the total being 97 below the number in 1882, and 735 below the decennial average corrected for increase of population. For so small a number of births, we have to go back to 1873, when the population was some 33,000 smaller than in 1883. The birth rate was only 25·2 per 1,000; 4·4 below the decennial average; (27·2 in the Town sub-district, and 19·4 in Brompton), being 8·7 per 1,000 below that of the Metropolis generally, (33·9), and 8·0 per 1,000 below that of all England and Wales, (33·2). There was one birth to every 39·7 persons living, and 104 male births to 100 of females. The illegitimate births were 203; males 107, females 96, and of these 186 took place in the Town sub-district, which includes the parish workhouse, at which institution, out of a total of 147 births—males 82, and females 65—121 were illegitimate. The illegitimate births in the parish formed 4·8 per cent of total births.

The subjoined table shows the quarterly numbers of births, of males and females, in each of the sub-districts:—

Kensington Town Sub-district.			Brompton Sub-district.			Grand Total Whole Parish.
Males.	Females.	Total.	Males.	Females.	Total.	
457	455	912	135	109	244	1156
461	424	885	118	100	218	1103
392	400	792	99	98	197	989
409	376	785	92	105	197	982
1719	1655	3374	444	412	856	4230

Additional particulars respecting births and birth rates during the decennium 1873-82, are set out in Tables 1 and 2 (Appendix).

## DEATHS AND DEATH RATE.

The deaths in 1883 were fewer by 76 than in 1882, and some 565 below the decennial average corrected for increase of population. The total was 2,615, viz., 2,115 in the town sub-district and 500 in Brompton. One hundred and sixty of the deaths, (119 in the town sub-district and 41 in Brompton), occurred at hospitals without the parish. The death-rate, whole parish, was 15·5 per 1,000, the lowest on record, being 0·7 below the rate in 1882, (16·2), of which I had the same satisfactory observation to make in my last annual report. It was 2·8 per 1,000 below the decennial average rate, (18·3); 4·0 per 1,000 below the rate in England and Wales, (19·5), and 4·9 per 1,000 below the metropolitan rate, (20·4), this, moreover, being 2·0 per 1,000 below the decennial average, (22·4). The rate was 16·5 per 1,000 in the Town sub-district, and 12·9 per 1,000 in Brompton. In the male sex it was 18·7, in the female sex 18·4 per 1,000. There was one death to every 64·2 persons living; 1351 females died out of 100,670, (or one in 74·5), and 1264 males out of 67,330, (or one in 53·3). The rate in the female sex was the same as in 1882, but the rate in the male sex was 1·8 per 1,000 lower.

## INFANTILE MORTALITY.

The deaths of young children always bear a high ratio to total deaths, but in 1883 the ratio was lower than usual. The deaths under five years, 982, (132 fewer than in 1882), were equal to 37·5 per cent. on total deaths, and to 23·2 per cent. on births registered; the relative percentages in the Metropolis generally, being 41·6 and 25·1. Under one year of age there were 601 deaths, or 34 less than in 1882, equal to 22·9 per cent. on total deaths, and to 14·3 per cent. on births registered: the relative percentages in the Metropolis generally, being 24·1 and 14·6.

The deaths of illegitimate children under five years of age were 78, (in 1882, 114), equal to 38·4 per cent. on births

registered as illegitimate: all but 7 of them occurred in the Town sub-district. Of the 78 children, only 14 outlived the first year, and of these 10 died in the second year. The causes of death as registered were, scrofulous and wasting diseases, 19 deaths; want of breast milk, debility, 2; premature birth, 5; thrush, 1; diseases of the digestive system, 3; diseases of the lungs, 14; diseases of the brain, 12, (including convulsions, 10); zymotic diseases, 10; (viz: measles, 2; scarlet fever, 1; and diarrhoea, 7); syphilis, 8; and violence, 4; (suffocation, 3; run over by a cab, 1).

A large proportion of illegitimate children are brought up by hand, and by strangers: the evidence of improper feeding, and absence of maternal care, is sufficiently apparent in the above list of diseases.

At sixty years of age and upwards there were 699 deaths, 80 more than in 1882, equal to 25.5 per cent. on total deaths, the proportion in all London being 21.6 per cent.

The deaths in the first and fourth, or colder, quarters of the year, exceeded the deaths in the second and third, or warmer, quarters by 251: in 1880, 1881, and 1882, respectively, the difference was 240, 120, and 355, in favour of the warmer quarters.

The subjoined table shows the quarterly numbers of deaths, of parishioners, males and females, in each of the sub-districts, including those that occurred at Hospitals outside the parish.

Kensington Town Sub-district.			Brompton Sub-district.			Grand Total Whole Parish.
Males.	Females.	Total.	Males.	Females.	Total.	
268	316	584	69	91	160	744
240	248	488	61	66	127	615
241	236	477	55	35	90	567
278	288	566	52	71	123	689
1027	1088	2115	237	263	500	2615
The Births were, Males			2162	the Deaths, Males		1264
Females			2068	Females		1251
Total			4230	Total		2615
			2615	Deaths		
			1615	Excess of Births over Deaths		

The subjoined table shows the death rate in each of 18 periods of four weeks, corresponding with my monthly reports; and the mean temperature of the air:—

DATE OF REPORT.	Death-rate per 1,000 living.	Decen- nial Average.	Mean Temperature of the Air.		
			In 1883.	Decen- nial Average.	Above or below Average.
For four weeks to Jan. 27, 1883	18.7	20.7	41.6	38.3	+ 3.3
" " " " Feb. 24, "	14.9	21.2	42.2	39.1	+ 3.1
" " " " Mar. 24, "	17.0	20.2	36.6	41.9	— 5.3
" " " " April 21, "	19.1	20.6	44.8	45.6	— 0.8
" " " " May 19, "	13.5	17.5	48.8	49.8	— 1.0
" " " " June 16, "	14.7	16.6	58.1	55.9	+ 2.2
" " " " July 14, "	12.9	15.6	61.3	61.3	—
" " " " Aug. 11, "	14.8	17.5	58.3	62.4	— 4.1
" " " " Sept. 8, "	13.8	15.1	60.9	60.7	+ 0.2
" " " " Oct. 6, "	10.7	14.2	55.2	55.0	+ 0.2
" " " " Nov. 3, "	14.9	16.1	50.6	51.2	— 0.6
" " " " Dec. 1, "	16.6	19.3	43.4	42.3	+ 1.1
" " " " Dec. 29, "	17.3	20.5	40.7	38.3	+ 2.4
Averages (whole year)	15.5	18.3	49.4	49.4	

The subjoined table is a summary of Table 3 (Appendix) showing the numbers of deaths of parishioners in 1883, in each class and order, according to the Registrar-General's re-arranged classification:—

I. SPECIFIC FEBRILE OR ZYMOTIC DISEASES						No. of Deaths.
1.	Miasmatic diseases	..	..	..	..	171
2.	Diarrhoeal	"	..	..	..	82
3.	Malarial	"	..	..	..	..
4.	Zoogenous	"	..	..	..	..
5.	Venereal	"	..	..	..	28
6.	Septic	"	..	..	..	39
						320
II. PARASITIC DISEASES						6
III. DIETIC DISEASES						18
IV. CONSTITUTIONAL DISEASES						602
V. DEVELOPMENTAL DISEASES						161
VI. LOCAL DISEASES						
1.	Diseases of Nervous system	..	..	..	..	288
2.	Diseases of Organs of Special Sense	..	..	..	..	5
3.	Diseases of Circulatory system	..	..	..	..	179
4.	Diseases of Respiratory system	..	..	..	..	585
5.	Diseases of Digestive system	..	..	..	..	166
6.	Diseases of Lymphatic system	..	..	..	..	1
7.	Diseases of Glandlike Organs of uncertain use	..	..	..	..	1

8.	Diseases of Urinary system .. ..	83	
9.	Diseases of Reproductive system .. ..	..	
	<i>a.</i> Diseases of Organs of Generation .. ..	15	
	<i>b.</i> Diseases of Parturition .. ..	3	
10.	Diseases of Locomotive system .. ..	2	
11.	Diseases of Integumentary system .. ..	4	
		<hr/>	1,321
VII.	VIOLENCE. .. ..	..	
	1. Accident or Negligence.. ..	40	
	2. Battle .. ..	..	
	3. Homicide .. ..	1	
	4. Suicide .. ..	10	
	5. Execution.. ..	..	
		<hr/>	51
VIII.	ILL-DEFINED AND NOT SPECIFIED CAUSES ..	136	
		<hr/>	
	Total ..	2,615	

### ASSIGNED CAUSES OF DEATH.

Having already, (at page 20), treated of the deaths from the "principal diseases of the zymotic class," I now proceed to give some particulars of the mortality from the remaining diseases, but before doing so it is right to mention that the classification of the causes of death in the "Weekly Returns" of the Registrar-General was considerably modified at the beginning of 1882. "The list of causes, in its new form," as the Registrar-General stated in his Annual Summary for that year, "is an abbreviation of the much more detailed list which has been drawn up for use in the 'Annual Reports of Births, Deaths, and Marriages in England,' and which has been compiled in general accordance with the classification of the Royal College of Physicians. The London deaths, though they are only classified by the abridged list in the Weekly Return, and in the Annual Summary, will be afterwards classified by the full list in the 'Annual Report of Births, Deaths, and Marriages in England.'" Table 3 in my reports, prior to 1882, was framed upon the lines of the less abridged list of the causes of death contained in the Annual Summary, and it was the basis, to a large extent, of all the other tables. As it was not possible to accept the more abridged list contained in the Annual Summary for 1882, but, at the same time, desirable to frame table 3 in close

accordance with the more detailed list drawn up for use in the Annual Report, I placed myself in communication with the Registrar-General's Department, and having been favoured with a copy of the new classification, I brought the subject under the notice of the Society of Medical Officers of Health, who decided to revise the tables which they had framed for the sake of uniformity, some ten years previously. Tables 1 to 6, (Appendix), therefore, will be found to differ considerably from similarly numbered tables in annual reports prior to 1882, in which year I adopted the new forms settled by the Society. With these preliminary remarks, I pass on to deal with the remaining diseases included in the "Class" of

SPECIFIC FEBRILE OR ZYMOTIC DISEASES, which comprises six "Orders," the first and second "Miasmatic," and "Diarrhœal," including the diseases already dealt with.

Order 3, "Malarial Diseases," includes *Remittent Fever* and *Ague*, and Order 4, Zoogenous diseases, includes *Cowpox* and effects of vaccination, *hydrophobia*, *glanders*, *splenic fever*, &c., but no deaths were registered from any of these causes.

Order 5, "Venereal Diseases," includes *syphilis*, *gonorrhœa*, and *stricture of the urethra*. Syphilis was the only fatal disease in 1883, the deaths registered being 23—viz., 22 in the Town sub-district, and 1 in Brompton: 17 of the deaths were of infants under one year of age. If the truth were known, it would probably appear that this Protean malady was accountable, directly or indirectly for a much larger number of deaths.

Order 6, Septic Diseases. This order comprises *Erysipelas*, *Pyæmia*, *Septicæmia*, and *Puerperal Fever*, the total deaths registered being 33.

*Erysipelas* was the cause of 10 deaths, all in the Town sub-district, and 4 of them of children under one year of age.

*Pyæmia* and *septicæmia* were the causes of 3 deaths, two of them in the Brompton sub-district.



*Puerperal Fever* was the registered cause of 26 deaths, all but 5 in the Town sub-district. Seven of the deaths were of women between 15 and 25 years of age, 14 between 25 and 35, and 5 between 35 and 45. In addition to these 26 deaths, 3 deaths, two of them in the Town sub-district, were registered as having occurred in "childbirth," as against 9 in 1882. The distinction between these two classes of cases is, that whilst puerperal fever is a specific and communicable disease; deaths registered as caused by childbirth simply, are, so to say, accidental, a common cause being hæmorrhage ("flooding"). The total deaths registered as having been caused by the diseases and accidents associated with parturition, 29, (10 more than in 1882, and 15 more than in 1881), were equal to 0·68 per cent. on registered live births.

[Among the deaths from Puerperal Fever there were three in the practice of a midwife. One took place at St. Mary's Hospital after a horrible illness extending over three months; the other two had been previously registered within a few days of one another, upon the certificates of two medical men who had been called in by the midwife; each, however, being in ignorance of what had taken place in the practice of the other. These medical gentlemen discontinued midwifery practice for many weeks through fear of spreading the disease, and each cautioned the midwife to do the same, but she did not. A fourth case occurred in her practice; it did not prove fatal, but the victim passed through a long and serious illness. The occurrences above referred to did not come to my knowledge till after the death and burial of the two first cases. I lost no time in calling upon the midwife and putting a stop to her practice. When the third death took place, and the body having been removed from St. Mary's Hospital to the previous residence of the deceased in this parish, I reported the particulars to the Coroner, who held an inquest, and the jury returned a verdict of manslaughter against the midwife, who was subsequently

charged at the Hammersmith Police Court. The facts of all four cases were brought by your Vestry to the knowledge of the Public Prosecutor, and by him they were submitted to an eminent criminal lawyer who formed the opinion that there was no ground for taking proceedings against the midwife. The Public Prosecutor, therefore, refused to take up the case, and when the midwife was charged, the conduct of the prosecution was left in the hands of the police. The Magistrate, however, having certified that it was a case in which the police should have legal assistance, the Public Prosecutor had no alternative but to intervene. The "prosecution" was entrusted to the learned counsel who had previously been consulted by the Public Prosecutor, and had arrived at the conclusion that there was no case, and as submitted, the Magistrate had no alternative but to dismiss the charge. He, however, called counsel's attention pointedly to the circumstance that, to all appearance, another of the cases was much stronger and more suitable for prosecution, and enquired whether the Public Prosecutor would take it up? The learned counsel, in reply, only remarked that that case was not then in question, and it was not heard of again. The history of this sad affair was very fully set out in several of my monthly reports, and in a special report, (No. 6, May 21, page 45), I gave a summary of the proceedings at the Police Court, &c. The only satisfactory result of the proceedings, was, that the midwife, conscious of her wrong doing, and fearing that further action might be taken; having, moreover, lost her business, owing to the strong feeling excited against her among the married women in her usual field of practice, quitted the parish.]

#### CLASS 2.—PARASITIC DISEASES.

Includes *Thrush and other vegetable parasitic diseases*; 6 deaths, 4 of them in the Town district, and 5 under 1 year of age, and "*Worms, Hydatids, and other animal parasitic*

*diseases,"* no deaths having been registered from these latter causes.

#### CLASS 3.—DIETIC DISEASES

Were the causes of 18 deaths, 12 of them in the Town sub-district. *Want of breast milk* was the cause of 8 deaths. To *Scurvy* no death was assigned. *Chronic alcoholism* and *delirium tremens* were the registered causes of 8 and 2 deaths respectively; eight of them in the Town sub-district. It is scarcely necessary to say that, if all the deaths due, directly and indirectly, to the immoderate use of intoxicating liquors could be ascertained, "Alcoholism" would occupy a much more prominent position in the "Bills of Mortality;" but many deaths due to the abuse of alcohol get registered, and therefore are classified to visceral and degenerative diseases, secondary in their character, but which have been caused or aggravated by "drink." Man's ingenuity in the discovery of alcohol is accountable for a large share of the misery of his race. "Drink" is the fruitful parent of vice and crime, as well as being the cause of much bodily sickness, mental trouble, moral degradation, ruin, and many premature deaths: it fills our prisons and workhouses, our asylums and hospitals, our cemeteries, and, though happily to a decreasing extent, our National Exchequer!

#### CLASS. 4—CONSTITUTIONAL DISEASES.

This important class comprises the causes of 602 deaths (=28 per cent. of total deaths): including 129 of children under the age of 5 years; 485 in the Town sub-district, and 117 in Brompton.

*Rheumatic Fever and Rheumatism of the heart* caused 13 deaths; *Rheumatism* 7. In many fatal cases of rheumatic fever the immediate cause of death is disease of the heart arising in the course of the malady; and of the deaths from heart disease at later periods of life, not a few might justly be ascribed to

rheumatism as the primary cause, though the connexion may have been overlooked, or is not recognised in the medical certificate of the cause of death. In the new classification deaths due to rheumatic disease involving the heart are distinguished from ordinary rheumatism without such complication. *Gout* was the cause of 5 deaths and *Rickets* of 2.

*Cancer*, (*Malignant disease*), was accountable for 128 deaths; 108 in the Town sub-district, and 25 in Brompton. The deaths from cancer appear to be on the increase, the numbers in the previous nine years having been 67, 74, 69, 88, 79, 95, 90, 112, and 92. The deaths in the Brompton sub-district are usually, but were not in 1888, more numerous proportionally to population than in the relatively poorer Town sub-district. Cancer, in fact, is quite as prevalent in well-to-do people, more prevalent, perhaps, than amongst the poorer classes. The parts of the body most commonly affected are the viscera or internal organs; in women, the uterus and the breast; the malady, moreover, being most common in later life. One hundred and nine of the deaths took place at ages above 45. It may be well to mention that in Table 3, (Appendix), the deaths of persons who had cancer are classified to cancer irrespective of the question whether any other disease was named in the medical certificate, and of the question whether cancer was the *immediate* cause of death.

*Purpura*, *Hemorrhagic diathesis*, caused three deaths; *Anæmia*, *Chlorosis*, and *Leucocythemia*, 4 deaths; *Glycosuria*, *Diabetes mellitus*, 13 deaths, 7 of them in the Brompton sub-district.

The remaining diseases in this Class belong to the group generically known as

TUBERCULAR. and they are amongst the most important with which sanitarians have to deal, the degree to which they prevail in a given district being regarded, in some sort, as a test of the healthiness or otherwise of the people. Generally hereditary, these diseases are nevertheless susceptible of

considerable amelioration under improved hygienic arrangements. *Scrofula* is unknown in Hygieapolis! Sunlight and pure air; efficient drainage and its corollary, a dry sub-soil; good food, warm clothing, and temperance in all things, are powerful antidotes to the bane of tubercle, which is fostered by squalor and dirt, by cold and nakedness, by vice and intemperance, by the want of the proper necessities of life, by over-crowding in ill-constructed, unventilated, and sewage-tainted houses, and, in a word, by whatever is inimical to the maintenance of a typical condition of health. The cases that occur in the well-to-do classes, it has been the custom to say, are usually traceable to the influence of heredity, but modern researches, which have thrown great light on the origin of tubercle, raise a presumption that *tuberculosis* may be an infectious disease, a specific fever of slow progress with a veiled resemblance to other specific eruptive fevers; and we are encouraged to hope that a remedy may ultimately be found for this great scourge of the human race. Tubercular diseases were the registered causes of 425 deaths viz., 347 in the Town sub-district, and 78 in Brompton; 122 of the deaths being of children under 5 years of age. The numbers in the four quarters of the year respectively were 117, 103, 106 and 99; 216 in the winter and 209 in the summer quarters. Occasionally "*phthisis*" is returned as the cause of death in the earliest infancy, a period of life at which the tubercular diathesis is usually manifested by diseases of other parts of the body, e.g., brain and bowels, rather than of the lungs. Such deaths are classified in Table 3, with those properly certified as due to *tuberculosis* and other forms of *scrofula*, the total being 33, of which 19 occurred under 5 years of age, including 6 registered in the Brompton sub-district. *Tabes mesenterica*, popularly known as "consumption of the bowels," was the cause of 48 deaths, 3 of them in Brompton, and 46 under 5 years of age. *Tubercular meningitis* and *Hydrocephalus*, (water on the brain), were the causes of 67 deaths, 12 of them in Brompton, and

57 under 5 years of age. *Phthisis*, popularly known as "decline," or "consumption," was the cause of 277 deaths, 12 of them between 5 and 15 years of age ; and 263 between 15 and 65, viz., 40, 75, 69, 51, and 28, in the five decades respectively: two deaths were registered at ages over 65. The quarterly numbers were 76, 69, 65, and 67 ; of the total, 220 belong to the Town sub-district and 57 to Brompton. The deaths from tubercular diseases generally, were disproportionately more numerous in the Town sub-district, less than a fifth having occurred in Brompton, which contains more than a fourth of the population, a fact which may be explained, in part, by the relatively small proportion of children, and of the poorest classes, in this sub-district. It is probable that the deaths ascribed to these causes do not comprise all the deaths really due to diseases indicating the tubercular diathesis, and that many deaths of young children classified to such causes as *premature birth*, *atrophy*, *debility*, *convulsions*, &c., are primarily due to the scrofulous taint. In many instances other diseases, *e.g.*, of the lungs, as bronchitis, pneumonia, &c., are associated with *phthisis* in medical certificates of the cause of death, but all such associated diseases are disregarded in Table 3 : when *phthisis* is returned the death is classified to that heading, it being assumed that the tubercular diathesis was underlying the other disease or diseases, being in fact the primary cause of death.

#### CLASS 5.—DEVELOPMENTAL DISEASES.

In this class, *Premature birth* is the assigned cause of 61 deaths ; *Atelectasis* of 7, and *Congenital malformation* of 13. *Old age* was the registered cause of 80 deaths ; all but one at ages over 65. Between 75 and 85 there were 40 deaths, and 22 at ages above 85. The total deaths in this class were 161, viz., 124 in the Town sub-district, and 37 in Brompton.

## CLASS 6.—LOCAL DISEASES.

The diseases in this Class, containing eleven Orders, named after the systems or organs to which the diseases relate, were accountable for 1321 deaths, or 50 per cent. of the deaths from all causes: 1065 were registered in the Town sub-district, and 256 in Brompton; 415 were of children under five years of age.

1. NERVOUS SYSTEM.—Diseases of the nervous system were the registered causes of 288 deaths, (as against 260 in 1882), viz., 222 in the Town sub-district, and 66 in Brompton: 87 under five years of age. The quarterly numbers were 86, 61, 66 and 75. *Inflammation of the brain or membranes* was the cause of 17 deaths; *Insanity and General Paralysis of the insane* of 8; *Epilepsy* of 10; *Disease of spinal cord, paraplegia and paralysis agitans* of 11; “*Other diseases of nervous system*” of 29. The principal diseases, however, were *apoplexy, softening of brain, hemiplegia, and brain paralysis*, which together account for 137 deaths, 35 of them in Brompton, and 126 at ages above 45. *Convulsions* was the cause of 70 deaths, all under 5 years of age, and 17 only in Brompton, irrespective of the deaths referred to *epilepsy*. Convulsions as a cause of death is frequently associated, in medical certificates, with definite diseases, and with “teething.” The convulsions being a symptom only, such deaths are classified to the primary diseases named, or to dentition, as the case may be. *Laryngismus stridulus*, (spasm of the glottis), included in the new classification with diseases of the nervous system, was the registered cause of 6 deaths, all under five years of age; but as the children were generally “found dead in bed,” it is probable that the title has little more meaning than “want of breath,” as a cause of death; and indeed want of breath is the cause of death when death results from spasm of the glottis. In the absence of other apparent cause of death, the pre-existence of spasm of the glottis may have been inferred, but it is quite possible, to say the least of it, that some of

the children had been "overlaid," *i.e.*, suffocated—a remark equally applicable to deaths attributed to *convulsions*, when the deceased persons have been found "dead in bed." The cause of death in such cases—whether spasm of the glottis or convulsions be returned, can be only guessed at when the child has not been seen to die, for examination after death would not disclose the occurrence of spasm, during life, and there is no pathological condition which would enable one to say positively that a child had suffered, still less that it had died, from convulsions.

2. The second Order comprises the DISEASES OF THE ORGANS OF SPECIAL SENSE, (*e.g.*, of ear, eye, nose); five deaths were classified to these causes.

3. CIRCULATORY SYSTEM.—The deaths due to diseases of the organs of circulation, heart and blood vessels, were 179, as against 158 and 167 in the two preceding years: 150 were registered in the Town sub-district, and 29 in Brompton; 3 only were of children under five years of age. The quarterly numbers were 49, 39, 34 and 57. To specified forms of disease, 65 deaths were assigned, *viz.*, *Pericarditis* 6; *Acute endocarditis* 1; *Valvular diseases of heart* 51; *Aneurism* 6; *Embolism, Thrombosis* 1; *Other diseases of heart*, nature not specified, caused 113 deaths; *other diseases of blood vessels*, one death.

4. RESPIRATORY SYSTEM.—The deaths from the diseases of the chest, *phthisis* being excluded, were 585, 24 fewer than in 1882, and equal to 22·3 per cent. on total deaths. Of this number 488 were registered in the Town sub-district, and 102 in Brompton. The quarterly numbers were 197, 145, 69, and 174: 371 in the first and fourth, or colder quarters, and 214 in the second and third, or warmer quarters. The deaths under five years of age were 264, =45 per cent., and at 55 and upwards 211, =36 per cent. of the whole number. These diseases are thus seen to be most fatal at the extremes of life; but the prevalence of them varies considerably in different years, depending mainly on the degree



of cold in winter, and the general character of that season : they are always most fatal when fog, especially "London fog," is associated with low temperature. The several diseases are *Laryngitis* 5 deaths ; *Croup*, (transferred in the new classification from miasmatic diseases), 30 ; *Emphysema*, *Asthma*, 10 ; *Pleurisy*, 17 ; *Bronchitis*, 367 ; *Pneumonia*, 124 ; and *Other diseases of the respiratory system*, 32. *Bronchitis* and *Pneumonia* therefore, and they often occur together, were accountable for 491 deaths, (including 216 under five years), and of this number 78 only were registered in Brompton.

5. DISEASES OF DIGESTIVE SYSTEM.—The diseases of the organs concerned in digestion were the causes of 156 deaths ; 122 in the Town sub-district, and 34 in Brompton ; 48 of them under five years of age. In the new classification, *Dentition* is included in this Order ; it was the cause of 29 deaths under five, 15 of them under one year. *Sore throat and Quinsy*, (the latter disease transferred in the new classification from miasmatic diseases), were the causes of 5 deaths. *Diseases of Stomach* of 15 deaths ; *Enteritis* of 14 ; *Obstructive diseases of intestines* of 17, and *Peritonitis* of 12. *Cirrhosis of Liver* was the registered cause of 20 deaths ; *Jaundice and other diseases of Liver* of 35, and *Other diseases of digestive system* of nine.

6. DISEASES OF LYMPHATIC SYSTEM, *e.g.*, of Lymphatics and Spleen ; no deaths were registered from these causes, and only one death from

7. DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE (*e.g.*, *Bronchocele*, *Addison's disease*).

8. DISEASES OF URINARY ORGANS.—Of the 83 deaths assigned to these causes, 68 were registered in the Town sub-district and 15 in Brompton : two only were of children under five years of age. The diseases were, *Nephritis*, 14 deaths ; *Bright's disease*, (*Albuminuria*), 38 ; *Diseases of the bladder, or of the prostate*, 10, and *Other diseases of urinary system*, 21.

9. DISEASES OF REPRODUCTIVE SYSTEM.—(a) Of organs of generation : male organs, no deaths ; female organs, 15 : (b) Of parturition 3 deaths, viz., from *Placenta prævia*, (flooding), 2, and *Other accidents of childbirth*, 1.

10. DISEASES OF BONES AND JOINTS.—*Arthritis, ostitis, periostitis*, caused two deaths.

11. DISEASES OF INTEGUMENTARY SYSTEM, 4 deaths, viz., *Carbuncle, Phlegmon*, 2 ; “ *Other diseases*,” 2.

#### CLASS 7.—DEATHS FROM VIOLENCE.

Fifty-one deaths, including 21 under five years of age, are distributed over the four Orders comprised in this class ; 13 of them belonging to the Brompton sub-district.

1. ACCIDENT OR NEGLIGENCE.—Total deaths 40, including 9 in Brompton, and 20 under five years of age, viz., from *Fractures and Contusions*, 15 ; *Burn, Scald*, 3 ; *Poison*, 2 ; *Drowning*, 2 ; *Suffocation*, generally of infants “ overlaid,” 16, including 14 under one year ; “ *Otherwise*,” 2.

2. HOMICIDE.—*Murder*, 1 ; of a newly born child, by some person unknown.

3. SUICIDE.—Of the 10 suicidal deaths, seven occurred in the Town sub-district, and 3 in Brompton. *Poison* was the lethal agent in 5 cases ; *Hanging* in 2 ; *Cut, Stab* in 2 ; *Pistol shot wound* in 1.

CLASS 8.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.—This class has assumed great importance in the new arrangement, owing to the transfer of a large number of diseases from other positions in the old classification ; the causes of 136 deaths, 118 and 18 in the Town and Brompton sub-districts respectively, including 108 under five years of age, are embraced in it, viz :—*Dropsy*, 1 ; *Debility, Atrophy, Inanition*, 108, (all under five years, and 98 under one year) ; *Mortification*, 2 ; *Abscess*, 8 ; and *Hemorrhage*, 1 ; *Causes not specified or ill-defined*, 16.

## DEATHS IN PUBLIC INSTITUTIONS.

The only "large public institution" within the parish in which we are directly interested, is the Parish Infirmary and Workhouse, situated in the Town sub-district. There are several minor public, or *quasi*-public institutions, but, with one exception, they do not furnish occasion for special notice. The excepted institution is St. Joseph's House, Portobello Road, Notting Hill—a Roman Catholic Home for aged poor persons of both sexes, brought from various parts, principally from Ireland; but the Registrar General does not regard it as a public institution. The deaths of non-parishioners at the Marylebone Infirmary, Notting Hill, (446), and at the Brompton Consumption Hospital, (116), are excluded from our statistics, but will furnish occasion for a few remarks later on. The deaths of parishioners registered at the Parish Infirmary and Workhouse, (322), and at out-lying institutions, (160), were 482, or 18·4 per cent. on total deaths, the percentage proportion of deaths in public institutions in the Metropolis generally being 20·6. The addition of the deaths at the Marylebone Infirmary, and Brompton Hospital to those at the Parish Infirmary, would raise the percentage in Kensington to 33·7.

THE PARISH INFIRMARY AND WORKHOUSE.—I am indebted to Mr. H. Percy Potter, Medical Superintendent of the Infirmary, and Medical Officer of the Workhouse, for the statistics of mortality at these important institutions; the former being, to all intents and purposes, as its name implies, a hospital; it contains over 600 beds. The deaths, 322\* in number, were equal to 12·3 per cent. on deaths registered in the parish; they were 15 in excess of the total in 1882, (307), and 49 in excess of the total in 1881, (273). The deaths comprised 164 of males, and 158 of females, the quarterly totals being 102, 72, 67, and 81; so that 183 deaths occurred in the first and last (or cold) quarters, and 139 in the second

\* The number registered in 1883, was 318; other four occurring at the end of December were not registered until the beginning of January, 1884.

and third (or warm) quarters. The ages at death were, under one year, 89; between one and sixty, 151; at sixty and upwards, 182. Two inquests were held; the causes of death being "violent," viz: male, aged 4 days, *found dead in bed, suffocation*; and male, aged 22, *injury to head*.

CAUSES OF DEATHS.				Under one year.	Between one year and sixty.	Sixty and upwards.	Total.
Nervous System, Diseases of ...				0	10	30	40
Circulatory Organs, „ ...				0	8	15	23
Respiratory „ „ ...				7	78	53	138
Abdominal Viscera „ „ ...				0	5	0	5
Urinary Organs „ „ ...				0	10	7	17
Joints (Hip) „ „ ...				0	1	0	1
Measles „ „ ...				1	4	0	5
Enteric Fever „ „ ...				0	1	0	1
Erysipelas „ „ ...				0	2	2	4
Diarrhœa „ „ ...				0	0	2	2
Cholera „ „ ...				0	1	0	1
Croup „ „ ...				0	1	0	1
Whooping Cough „ „ ...				0	1	0	1
Septicæmia „ „ ...				0	1	0	1
Diphtheria „ „ ...				1	0	0	1
Syphilis „ „ ...				3	6	0	9
Parametritis „ „ ...				0	1	0	1
Puerperal Eclampsia... „ „ ...				0	1	0	1
Convulsions „ „ ...				6	1	0	7
Want of Breast Milk „ „ ...				3	0	0	3
Cancer „ „ ...				0	12	15	27
Tabes Mesenterica „ „ ...				12	2	0	14
Scrofula „ „ ...				0	1	0	1
Premature Birth „ „ ...				4	0	0	4
Old Age „ „ ...				0	0	6	6
Stomatitis „ „ ...				0	1	0	1
Diabetes „ „ ...				0	1	0	1
Gout „ „ ...				0	1	0	1
Leucocythemia „ „ ...				0	0	1	1
Purpura „ „ ...				0	0	1	1
Asthenia „ „ ...				2	0	0	2
Injury to Head „ „ ...				0	1	0	1
Totals				89	151	182	822

OUTLYING PUBLIC INSTITUTIONS.—By virtue of an arrangement entered into between your Vestry and an official in the department of the Registrar General, I have been supplied, during the past year, with a return of the deaths of Kensington people in public institutions outside the parish. In Table 3, all such deaths, 160 in number, are included, and consequently all deaths of non-parishioners at Brompton hospital—heretofore included in our vital statistics by way of compensation for an unknown number of deaths of parishioners occurring outside the parish—have been excluded. The 160 deaths occurred in the following institutions, viz :

St. George's Hospital.....	42	Western District, (Fulham) Hospital	10
St. Mary's „ .....	44	South Western District, (Stockwell),,	1
Middlesex „ .....	10	Childrens' Hospitals .....	7
Charing Cross „ .....	5	Queen Charlotte's Hospital, and St.	
University College „ .....	4	John's Maternity Home (children 4)	5
St. Bartholomew's „ .....	3	Bethlehem Hospital .....	3
St. Thomas's „ .....	3	Military Hospital, Westminster ....	3
London „ .....	1	St. Raphael's Hospital .....	1
Guy's „ .....	1	Homeopathic „ .....	1
West London „ .....	4	St. Peter's Home, Kilburn .....	2
Cancer „ .....	4	Paddington Workhouse .....	1
Brompton Consumption Hospital,			
(south branch) .....	4		
North London Consumption Hospital	1		
		Total.....	160

ST. JOSEPH'S HOUSE.—The deaths at this institution, which are included in Table 3 (Appendix) were 28, viz.: males 12 and females 16; all at ages over 60, seventeen of them at ages over 70. Fifteen of the deceased had come from Ireland, seven from the provinces, six belonged to London. The causes of death were: diseases of the heart and lungs, 15: of the brain, including paralysis, 4; cancer, 3; albuminuria, 2; other diseases, 4.

THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—The deaths at this institution, or rather in that part of it situated in Kensington, a new hospital having been built on the south side of Fulham Road, in the parish of Chelsea, were 121, viz.: males 76, and females 45: 21, 29, 42, and 29 in the four quarters of the year respectively. The ages at death were: under 20 years, (youngest 18), 21;

between 20 and 40, 75 ; between 40 and 60, (oldest 57), 25. Five of the deaths were of parishioners, and are included in Table 3 (Appendix). Seventy-three of the deceased had previously resided in the Metropolis ; 18 in the suburbs or Metropolitan counties, and 30 in more distant parts of the country. The causes of death as registered, were ; *Phthisis* (consumption or decline) alone, in 93 cases ; *Phthisis* associated with other forms of tubercular disease in 3 cases, and with lung diseases in 7 cases ; other visceral diseases, chiefly of the heart and lungs, in 18 cases.

MARYLEBONE INFIRMARY, NOTTING HILL.—At this institution, which is larger than the parish infirmary, 446 deaths of non-parishioners were registered, but they are not included in Table 3 (Appendix). They comprised males 238, and females 208 ; 233 of the deceased were aged 60 and upwards, and 8 were under five years, including 7 under one year of age. Six deaths from zymotic diseases, and 6 from violence, were registered ; inquests were held in nine cases.

#### DEATHS NOT CERTIFIED.

Twenty deaths, (0·76 of all deaths registered), were returned as “not certified,” the deceased persons not having been attended in their last illness by any registered medical practitioner. The proportion of not certified deaths in London was 1·22 per cent. In three cases, unregistered male practitioners had been in attendance upon the deceased, and in two cases, (infants), midwives : in the remaining 15 cases there had been “no medical attendant.” The ages of the deceased were :—under 1, 6 ; between 1 and 5, 2 ; between 5 and 60, 6 ; 60 and upwards, 6. The causes of death, as registered, were :—wasting and debility of infants, 2 ; premature birth, 2 ; injury during birth, 1 ; old age, 4 ; whooping cough and diarrhœa, 1 each ; epilepsy and convulsions, one each ; *phthisis*, 1 ; diseases of the lungs, 3 ; sprained ankle, 1 ; “unknown,” (one of a child found dead in a public place), 2.

The subject of uncertified deaths has, on more than one occasion, engaged the attention of the Society of Medical Officers of Health, and in December, 1880, the Society, on the recommendation of the council, to which the subject had been referred for consideration, adopted the following resolution :—

“ That all cases of uncertified death should be reported by the local registrar of births and deaths to the Coroner, who should, when there is no *prima facie* ground for holding an inquest, direct such cases to be investigated by a registered medical practitioner.”

It had been suggested that the duty of making the investigation should devolve on the Medical Officer of Health, as a part of his ordinary work, but the Society did not adopt this view.

Of all the unsatisfactory arrangements connected with the subject of uncertified deaths, perhaps the most indefensible is the responsibility cast on the Coroner's Officer of making a preliminary enquiry, and of being the *de facto* judge in a doubtful case whether an inquest should be held. The Society, at my instance, adopted the following further resolution bearing on the subject,

“ That in the opinion of this Society, the present system of investigation of deaths referred to a Coroner, viz., by an officer having no special qualification for the discharge of the duty, is unsatisfactory.”

## INQUESTS.

One hundred and forty-five inquests, 118 in the Town sub-district, and 32 in Brompton, were held in the year, the subjects being males 83, and females 62; 58 were under five years of age, including 40 less than a year old, and 27 were persons aged 60 and upwards: the cause of death in 111 instances was ascertained by *post-mortem* examination.

THE DEATHS FROM VIOLENCE were 51, of which 18 belong to the Brompton sub-district. The grounds for holding inquests were, usually, either the suddenness of death,

or the fact that death has been caused by violence. In many cases it was stated that the deceased had been "found dead," in bed or otherwise.

The causes of death may be classified as follows:—

Deaths caused by disease	...	...	94
Accidental deaths	...	...	40
Suicidal	„	...	10
Homicidal	„	...	1
<hr/>			
			145

The diseases may be classified thus:—

Diseases of the brain and nervous system	27
„ „ organs of respiration and circulation	...
Zymotic diseases	...
Other diseases	...
	8

The violent deaths were caused as follows:—

Accident: Suffocation, (14 of infants one year) ... ..	16
Poison, (Chloral and Chloroform)...	2
Drowning ... ..	2
Falls, under various circumstances	5
Scalded ... ..	3
Run over by train 3, by cab 1 ...	4
Thrown from cart ... ..	3
Kicked by horse ... ..	2
Hemorrhage from neglect at birth	1
Otherwise ... ..	2
Suicide: By hanging ... ..	2
By poison ... ..	5
By cut throat ... ..	2
By pistol shot ... ..	1
Wilful Murder : (of newly born infant) ...	1

Among the deaths described as "sudden," there were, as usual, many from ordinary and curable visceral diseases, and it is impossible to resist the conviction that the neglect to



obtain medical assistance for the deceased was culpable, inas-much as the illnesses must often have extended over many days, and been attended with obvious symptoms of a more or less serious and painful nature. The mere finding of the "cause of death" in such cases, seems scarcely to satisfy the requirements of justice, considering that the death of any person—but particularly of one very young or very aged—from such diseases as pneumonia, bronchitis, &c., when there has been no medical attendance, raises a presumption of neglect which would justify a verdict of "manslaughter," just as much as in the case of the "peculiar people," who, whilst treating their sick with care in other respects, refuse, on so-called "conscientious" grounds, to employ medical assistance, and who, as a consequence of such refusal, death having ensued, have on several occasions been found guilty of manslaughter.

#### METEOROLOGY.

The mean temperature of the air at Greenwich in 1883 was  $49^{\circ}4$  Fahrenheit, the same as the average of 42 years; the means of the four quarters respectively being  $40^{\circ}0$ ,  $53^{\circ}0$ ,  $59^{\circ}5$ , and  $44^{\circ}9$ . The highest reading by day ( $85^{\circ}1$ ) was registered in the week ending August 25th, and the lowest reading by night ( $20^{\circ}6$ ) in the week ending March 24th; the means of the highest weekly readings by day, in the four quarters respectively, being  $51^{\circ}9$ ,  $71^{\circ}0$ ,  $75^{\circ}9$  and  $56^{\circ}1$ , and of the lowest readings, by night,  $28^{\circ}9$ ,  $37^{\circ}6$ ,  $46^{\circ}2$ , and  $35^{\circ}9$ . The hottest week in the year was that which ended July 7th, ( $64^{\circ}3$ ), and the coldest week that which ended March 10th ( $33^{\circ}8$ ). August was the hottest month, mean temperature  $61^{\circ}9$ , and March the coldest, mean temperature  $36^{\circ}1$ . May was characterised by the greatest range in temperature, viz. :  $50^{\circ}7$ —from  $81^{\circ}0$  to  $30^{\circ}3$ , whilst February exhibited the smallest range, viz. :  $24^{\circ}3$ —from  $55^{\circ}2$  to  $30^{\circ}9$ . The dryness of the atmosphere, *i.e.*, the difference between dew-point temperature and air-temperature was  $5^{\circ}8$ ; the same as the

average of 42 years. Rain fell on 178 days, the total amount registered in the year being 21·90 inches, the average of 42 years being 22·59 inches. Most rain fell in September, 3·82 inches, and least in August 0·72. The means of the readings of the barometer were 29·784 inches; the means of December 29·983, and of September 29·648, being respectively, highest and lowest.

### VACCINATION.

Table X (Appendix) is a return respecting the vaccination of children whose births were registered in 1883, and for it I am indebted to Mr. Shattock, the Vaccination Officer, whose energetic discharge of the duties of his appointment it is my pleasing duty, yearly, to recognise. The return shows a loss of 4·0 per cent. in the cases, as against 4·4 and 3·3 in the two previous years, in column 10, indicating loss “from removal of children to places out of parish unknown, or which cannot be reached, and cases not having been found.” In the Metropolis, as a whole, the loss considerably exceeds the loss in Kensington. It is due to the Guardians of the Poor—the authority responsible for carrying out the Vaccination Acts—to say that they cordially support their officer in the discharge of his duty.

---

With regard to the protection against small-pox afforded by vaccination—differing in degree as this does according as the operation is more or less perfectly performed—it should be unnecessary to say anything in these days; but the perverse pertinacity with which a noisy, if not considerable, minority decry this most beneficent of medical discoveries, shows no sign of abatement; the teaching of its opponents, moreover, being of a sort to oppose the masses to the continuance of the wise compulsion enforced by Parliament. Hence it becomes a duty, year by year, to refer to the subject, and I do not hesitate to refer again to the pregnant facts submitted to the Local Government Board by their

Medical Officer, Dr. Buchanan, in his report for 1881. Dr. Buchanan, first of all, refers to the relative mortality from small-pox in the vaccinated, and in the unvaccinated, inhabitants of London, which formed the subject of a memorandum which he submitted to the Board in June, 1881, and containing the following table :—

Comparative Small-pox Death Rates among Londoners, Vaccinated and Unvaccinated respectively, for the 52 weeks ended 29th May, 1881.

Death rate of people of subjoined ages.	Per million of each age of the vaccinated class.	Per million of each age of the unvaccinated class.
All ages ... ..	90	3,350
Under 20 years ...	61	4,520
Under 5 years ...	40½	5,950

But mainly he limits the scope of his further enquiry on the subject, to the mortality from small-pox among children under the age of ten years, for the sufficient reason that the limit embraces the period within which vaccination has been efficiently compulsory.

The population of London under ten was 916,784 on census night, 1881, of whom, in round numbers, 55,000 were unvaccinated, and 861,000 were vaccinated. In 1881 some 782 small-pox deaths occurred among the 55,000 unvaccinated, as against 125 among the vaccinated. "Upon equal numbers of the two classes, therefore, the mortality from small-pox among the unvaccinated, was about a hundredfold the mortality from small-pox among the vaccinated. This degree of protection was given to children under 10, by the average current vaccination of London."\*

\* "The power of a thorough vaccination to protect against death from small-pox," (it is stated), "is at least ten times greater than the power of much that passes under the name of vaccination."

"If the London children under 10 who were unvaccinated, had had the protection which the current vaccination gives, not 782 of them, but at the outside *nine*, would have died of small-pox during the year.

"If the 861,000 vaccinated children had died at the rate of the 55,000 unvaccinated, we should not now be considering 125 small-pox deaths, and how they can be reduced, but we should be confronted with an additional 12,000 and more deaths from small-pox, occurring during the year in the London population under 10 years of age."

This "great saving of children from death by small-pox can only have been due to vaccination, and largely to the operation of vaccination law."

It must be remembered, moreover, that the mortality of small-pox in vaccinated children, small though it be, is unduly high, for the reason, doubtless, that so much of the vaccination which passes current is imperfect, there still being many medical men who systematically evade the spirit of the law, and disregard the teachings of experience, as summed up in the instructions issued by the Board for the guidance of public vaccinators. A prime condition of vaccination, "successful" from the official standpoint, is the production of four typical vesicles; but we are told that there is a "form of private vaccination that offers itself in competition with public vaccination, and which parades its inefficiency as a reason for its acceptance by ignorant people. Its professors say to young mothers, 'Do you come to me and I won't hurt your baby; I'll make only one place on its arm, not four, as those public vaccinators do.'" It will excite little surprise, therefore, that—the vaccination being done in almost equal proportions by public vaccinators and private practitioners—the proportion of deaths from small-pox, among children under ten, is far greater among the patients of private practitioners, than among children vaccinated by the public vaccinators; and this despite reasons, to which Dr. Buchanan refers, which might fairly lead us to

expect a quite different result, were it not for the admittedly superior average quality of vaccination as performed by public vaccinators.

Here, then, we have a record of the "saving of 12,000 lives, by vaccination, to children under ten years of age" in the one year, 1881, when the total mortality from small-pox did not amount to one-third of the mortality in the epidemic of 1871. This saving of life is, I believe, justly attributed to the operation of the Vaccination Acts of 1867 and 1871. It only needs further to be mentioned that in the "two periods of ten years immediately preceding 1871, 59 and 54 per cent., or more than half, of the total small-pox mortality was borne by children under five years old," whilst "now, only 28 per cent., little more than a quarter of the total small-pox mortality, falls upon such children," a clear indication of the greater success with which the law of compulsory vaccination is now carried out.

**ANIMAL VACCINATION—CALF LYMPH.**—A common objection to "arm to arm" vaccination is based on the fact that as the lymph is passed through the human system, it may transmit disease: the dangers attending the use of humanised lymph, however, are very trifling, and practically, almost inappreciable. Nevertheless, and it being desirable to remove, as far as possible, every obstacle to vaccination, it is satisfactory to know that the Local Government Board have made arrangements to give people the option of having their children vaccinated with calf-lymph at the public vaccination stations. The Government, moreover, supplies medical practitioners with "stock" lymph to enable them to start a series of vaccinations, leaving them to keep up their supplies afterwards—if they can. The use of calf lymph is common on the Continent, and the system of animal vaccination has been carried to great perfection at Brussels under the direction of M. Warlomont, who forwards regular supplies of lymph to this country, tubes and charged ivory points being

purchasable at a moderate rate. A station, moreover, has been established by a private medical practitioner in the Marylebone Road, for the supply of calf lymph, and at which persons can be vaccinated direct from the calf.

### **SANITARY.**

COMMITTEE FOR CARRYING OUT THE NUISANCES REMOVAL ACTS.—With the view of accelerating proceedings in cases of nuisance, your Vestry decided, in February of the current year, to appoint the Works, Sanitary, and General Purposes Committee, to be a Committee to receive notices, take proceedings, and in all respects, execute the Nuisances Removal Act, for England, 1855, and all Amending Acts. The Committee meets for the purposes of the Acts once a week, and notices are issued upon the immediate authority of the Committee, which simply reports its proceedings to your Vestry. Summonses continue to be heard by the Justices sitting in Petty Sessions at the Vestry Hall. It were to be desired that the Justices would place Sanitary cases at the commencement, instead of, as heretofore, at the end of the agenda for the day, so that the several Inspectors might be set free early to proceed about their ordinary work. The business rarely occupies any considerable length of time, but on many occasions the entire staff of Inspectors has been detained till 2 or 3 p.m., waiting for their cases to come on. I have no doubt that the Justices would pay every regard to an application on the subject by your Vestry. They would also, I believe, consent to hold a mid-monthly sitting, if requested, for hearing sanitary cases. Their duties in this department of judicial work have increased considerably, owing to the Cheslea Vestry and the Fulham District Board of Works having to some extent followed the example of your Vestry in bringing their business before the Court. It is interesting to know that the magistrates in the Tower Hamlets Division, have recently

agreed to take up this description of judicial work, and to hold a fortnightly meeting for the purpose. At present, I believe, they take Bethnal Green cases only. Application was made to me by the magistrate to whose initiative this action is due, to know how the system worked in Kensington, and it afforded me much satisfaction to be able to speak so favourably of the results. It would be well if the Justices in every Division would follow this example: they might render good service in measures for improving the public health by the removal of nuisances, &c.

THE LOCAL GOVERNMENT BOARD AND SANITARY AUTHORITIES.—It will not be out of place here to mention that with the view of informing sanitary authorities on the extent and limitations of their powers, the Local Government Board, issued in December, a valuable circular letter dealing with "Dwellings of the Labouring Classes in the Metropolis," and accompanied by

- (a) Digest of provisions as to Removal of Nuisances, (Metropolis).
- (b) Digest of the Artizans and Labourers' Dwellings Acts, (Mr. Torrens's Acts).
- (c) Digest of the Artizans and Labourers' Dwellings Improvement Acts, (Sir R. Cross's Acts).
- (d) Digest of Labouring Classes' Lodging Houses Acts.

The Board at the same time issued circulars with regard to the Regulation of Houses let in lodgings, and with regard to the Regulation of Bakehouses under the Factory and Workshop Acts. These subjects will be referred to at a subsequent part of this report.

THE WORK OF THE SANITARY INSPECTORS.—Tables VI and VIA (appendix) contain a summary of the work of the Sanitary Inspectors during the year ended March 25, 1884. Ninety-eight summonses were taken out for offences,

principally under the Nuisances Removal Acts, against 104 and 78 in the two preceding years. Orders were made by the Magistrates in nearly every instance for giving effect to the Notices previously served on the defendant persons, upon whom, as the law stands, no further penalty could be inflicted than payment of costs to the extent of one or two shillings only, however serious or long continued the nuisance. Under the provisions of Section 96 of the Public Health Act, 1875, which does not apply to the Metropolis, the Justices have power by their Order to inflict a penalty not exceeding five pounds, on the person on whom the Order is made, together with all costs. It is to be desired that the same power should be conferred on Courts of Summary Jurisdiction in London. At present they can punish for contempt of Court only, viz. : for disobedience of the order of the Court. In three cases penalties were inflicted for this offence ; but the amount was paid in one case only. Probably if there were power to inflict penalties for offences under the Nuisances Removal Acts, disregard of the Local Authority's notices, which implies continuance of nuisance with consequent injury to health, to say nothing of the trouble and loss of time imposed upon officers, would be of less frequent occurrence. That the cases are proper to be brought before the Justices would appear from the fact that dismissal of a summons is a very rare occurrence. Orders were made as follows:—To lay on water to premises, 5; for the provision of new, or the repair of existing, cisterns, 13; for the abolition of waste-pipes in connexion with drains, 4; for the repair of defective fittings to water closets and supply of water to same, 30; for the construction, or amendment, including trapping and ventilation of drains, sinks, &c., 38; for the repair of defective rain water pipes, 3; for the provision of new, or repair of old, dustbins, 10; for the cleansing and reparation of dirty, unwholesome, and dilapidated houses, &c., 61, &c. Summonses have regard, usually, to "Premises in such a state as to be a nuisance or injurious to health," 82 being of this charac-



ter. Last year, however, proceedings were taken in several cases for the abatement of nuisances arising from the accumulation or deposit of offensive matters on vacant land. In every instance the requisite Order was made; once a penalty of forty-shillings was inflicted and in one case an Order to prohibit the recurrence of the nuisance was granted. A good deal of trouble had been occasioned previously in efforts to prevent or remove nuisances on the lands in question, (building sites), but with little effect, there being no power to compel owners to enclose. One summons only was taken out for breach of the regulations with regard to the periodical removal of manure, the Justices being unwilling to enforce payment of the penalty which the law authorises the "Nuisance Authority" to fix for the disobedience. On three several occasions proceedings were taken against one person to secure the removal of animals so kept as to be a nuisance or injurious to health, the animals being cats and dogs of all ages and both sexes. Once the defendant was mulct in costs to the extent of four shillings, a prohibitory order also being made, but the Order was nullified by a change of residence.\*

OFFENSIVE BUSINESSES.—Some of the more important legal proceedings related to the premises of a marine store dealer, *i.e.*, rag and bone shop. Numerous complaints had been received during the hot weather of the stench arising from the collection and storage of fat and other animal matters in a putrid condition on these and similar premises. As an illustration of the serious character of the nuisance, I quote from a report by the Sanitary Inspector on certain premises in Warwick Road. There was, he says, a "fearful stench emanating from a shed at the back of the house, caused by a large accumulation of putrid fat, bones, rabbit skins, and the refuse that had been collected from numerous kitchens. There were about 25 tubs full of fat, which was in

---

\* In the present year further proceedings were taken, and a Prohibitory Order granted. This was appealed against, but the decision of the Magistrates was upheld.

a putrid state, and alive with maggots. Besides these there were several sacks, baskets, &c. full of the most offensive fat, bones, &c." The stench from this place was perceptible at a distance of a hundred yards, and your Vestry's surveyor stated that the street in the vicinity was undermined with rat-runs directed to the premises. A notice was served for the removal of the stuff, and it was removed quickly, but even after thorough washing of the premises there remained a very offensive smell, caused no doubt by the bad state of the brick floor which held a quantity of the fat, &c.; the tubs also being saturated with fat. Further proceedings were subsequently taken to obtain an Order for the prohibition of the nuisance. So numerous were the complaints that, after due consideration, the Works, Sanitary, and General Purposes Committee recommended, and your Vestry directed, "that the attention of the Metropolitan Board of Works be directed to the serious character of the nuisance caused by the collection of putrid animal matters at marine stores, and that they be requested to consider as to the desirability of the business of a 'marine store dealer,' being declared an 'offensive business' under the provisions of the Slaughter Houses (Metropolis) Act, 1874, Section 3." It was felt that public advantage would result from the action recommended to be taken, for if the business were scheduled under the Act, we should be able to secure a proper construction of the premises where it is carried on, proper impermeable receptacles for the collection, storage, and removal of the fat, &c., and frequent, if not daily, removal of it from the premises. Incidentally, moreover, the nuisance would be diminished, for if the business were subjected to needful supervision, the proprietors would impress on vendors, domestic servants for the most part, the necessity of submitting their "perquisites" for sale in a more wholesome condition.

The Board, however, did not adopt the views submitted by your Vestry, for in their reply they stated that "the businesses to which the Act of 1874 refers, are businesses

which include processes of manufacture of a more or less offensive character, and that it does not appear to the Board that the mere collection of a mass of refuse matter into one place is a 'business' within the meaning of the 3rd Section of the Act." But among "offensive" businesses already scheduled are those of "bone boiler," "tallow melter," and "fat extractor," the staple articles of which are obtained largely from "rag and bone shops." The "processes of manufacture," moreover, in boiling bones, in melting tallow, in boiling hog-wash, &c., to extract fat, are not very obvious, and in any case the bye laws for the regulation of these "businesses" do not allow collections of bones, fat, &c., to remain exposed, polluting the air, on the premises. Why, then, should such matters be allowed to remain exposed, and to pollute the air in the neighbourhood of the stores where they are originally collected, and which are far more numerous than the "manufactories?" The Board was of opinion that a nuisance such as that brought under their notice "should be dealt with under the Nuisances Removal Act," which, they say, was "intended to apply to such cases." Doubtless: it was also intended to apply to the cases of the "offensive businesses" now regulated under the Slaughter Houses Act, in respect of which the Board is the Local Authority: but in practice it was found impossible to deal effectually with nuisances arising in the conduct of those businesses under the general Act, and so a special Act was passed. The Board, evidently, were unaware how difficult it is to deal with recurring trade nuisances under the Nuisances Removal Act: whilst no one knows better that there is little difficulty in preventing nuisance when the "offensive businesses" are conducted subject to bye-laws with appropriate penalties for offences. In properly constructed premises, in chambers without openings to the external atmosphere, and in covered impermeable receptacles, bones, fat, &c., can be stored without nuisance; and it is to be regretted that the Board did not see their way to secure these

requisites, by declaring a marine store business to be an "offensive business" within the meaning of the Act.

Shortly afterwards, at a time when I supposed the question of principle had been decided adversely to my views, by the expression of the Board's opinion, with which the Law and Parliamentary Committee expressed their concurrence, it came to my knowledge that in an appeal case, *Passey (Appellant), v. Oxford Local Board, (Respondents)*, Lord Chief Justice Cockburn and Mr. Justice Lopes had decided that the business of "bone and rag merchant" is an "offensive trade," of the same nature with those specified in Section 112 of the Public Health Act 1875, which is based upon, and substantially corresponds with, the 3rd Section of the Slaughter Houses (Metropolis) Act 1874. In my last report for 1883, (No. 15, December 31, page 136), I gave an outline of the above mentioned appeal case as reported in the *Local Government Chronicle*, (January 10, 1880, page 27), together with the terms of the judgment; and in view of the importance of the matter, the decision of the judges, moreover, being entirely accordant with my views, I recommended a reference to the Law and Parliamentary Committee to advise whether a further communication should not be addressed to the Metropolitan Board of Works, requesting them to again consider the subject with the above case before them? The Committee in their report simply recommended "that proceedings be taken as heretofore under the Nuisances Removal Act, as occasion may arise, the Committee not being prepared to advise that any further steps be taken at present as to the control of such businesses." The report was adopted and for the time, therefore, the question has collapsed.

#### THE LICENSED SLAUGHTER HOUSES.

The licensed slaughter houses, which in 1874 were 56 in number, are now only 24, viz., 15 in the district north of Uxbridge Road, and 9 in the remainder of the parish south

of that road. The names of the licensees, and the localities of the licensed premises, are set out in Table XI (appendix). The several premises were inspected, in July, by the Works, Sanitary, and General Purposes Committee, who found them to be in "good structural condition, and, as a rule, well kept." There were some striking exceptions to the rule, however, and the Committee were compelled to recommend proceedings against two of the licensees for offences against the bye-laws. The Magistrates did not convict even in the worst case, although the offence was practically admitted by the defendant as well as proved in evidence. At some of the slaughter houses, business appears to have been almost discontinued: compared with bygone years very little slaughtering was seen to be going on. Wherever animals were found in the lairs the Committee observed with satisfaction that, in accordance with a frequently repeated recommendation, water had been provided for their use. Altogether, the state of matters in regard to the slaughter houses has undergone a great improvement since the passing of the Act in 1874; nevertheless, I am still of opinion that private slaughter houses should give place to public abattoirs, and that the dead meat trade should be encouraged to the utmost possible extent. It would be well, moreover, looking at the matter from the public health point of view, could facilities be increased for bringing the consumer into direct relations with the purveyor of frozen meat imported from our colonies. This meat, which generally is excellent in quality and condition, is sold, but too often, under false colours, and at an unfairly high price, as English meat.

It may be mentioned that the business of a slaughterer of cattle has not been established anew in Kensington since the passing of the Act, and that the number of private slaughter houses in the Metropolis, which in 1874 was 1,420, had fallen, in October 1883, to 809, and this without any evidence forthcoming to show that inconvenience had arisen to the public,

or that the supply of sound meat had been in any way curtailed, as a consequence of the large reduction.

### THE LICENSED COWSHEDS.

The licensed cowsheds are 15 in number, viz., 9 in the district north of Uxbridge Road, and 6 in the remainder of the parish south of that road. The names of the licensees, and the localities of the licensed premises, are set out in Table XII (appendix). The several premises were inspected, in July, by the Works, Sanitary, and General Purposes Committee, and were "found in fairly good sanitary condition." The sheds, which in the aggregate are licensed for the keeping of 189 cows, contained 126 cows only, at the time of inspection.

### DAIRIES, COWSHEDS, AND MILKSHOPS ORDER OF 1879.

SANITARY SUPERVISION OF DAIRIES, COWSHEDS, &c.—The Metropolitan Board of Works is the "Local Authority" under this Order, which "provides for the registration of all persons carrying on the trade of cow-keeper and purveyor of milk, etc.," and under which upwards of 16,000 registrations or transfers of registration, have been effected since the Order first came into operation. We learn from the Board's Annual Report, that during 1883, there were in the Metropolis 895 cowkeepers, keeping upwards of 10,000 cows in 1171 cowsheds. There were 231 dairies, and 1,941 shops exclusively confined to the sale of milk and dairy produce; milk was sold at 4,421 general shops also, and kept for sale in 516 dwellings, where there was no shop. The total number of places at which cows were kept and milk sold in the metropolis was 8,285.

The Board, in the Annual Report for 1882, stated that "in the larger dairies and milk stores much improvement has

taken place, and they are generally in a satisfactory condition ; and in the small shops where milk is sold there has been considerable improvement in point of cleanliness, and in the separation from the place of storage, of substances likely to contaminate the milk."

#### PUBLIC HEALTH, (DAIRIES, &c.) BILL, 1888.

In my last Annual Report I referred to the "Public Health, (Dairies, &c.) Bill," introduced by the Government, with the object of placing the supervision of dairies, cowsheds, &c., under the Sanitary Authorities, it having been found, by experience, that in many parts of the country the "Dairies, &c. Order, 1879," framed by the Privy Council under Section 34 of the "Contagious Diseases, (Animals) Act, 1878," was practically a dead letter, owing to the general failure by "Local Authorities," (mostly county Magistrates), to appoint proper officers to inspect dairies and cowsheds, and generally to carry out the provisions of the Order.\* This Bill was to have transferred to the Local Government Board, the powers of the Privy Council, with regard to cowsheds, dairies, and milk shops, including the power of making "Orders." Had it passed, the Metropolitan Board of Works would have continued to be the "Local Authority" for the Metropolis, outside the city ; an objectionable arrangement seeing that the Board have no Medical Officer and no proper sanitary staff. Under the auspices of your Vestry, a strong opposition to this part of the Bill was raised, it having been urged that while it would be well to give the Board power to frame the bye-laws for the regulation of dairies and cowsheds &c., so as to secure uniformity, the duty of carrying out the bye-laws and generally of supervising dairies, cowsheds, &c., should be intrusted to the Vestries and the District Boards ; these bodies, without exception, having

---

\* The "Local Authorities" for Middlesex, and part of the County of Surrey, are deserving of honourable mention, for having appointed special officers to carry out the provisions of the Order.

Medical and Sanitary officers well accustomed to the work. The views of your Vestry were in complete accordance with those of the Society of Medical Officers of Health, who, at a former time, had passed a resolution to the effect—

“That it is desirable, having regard to the more effectual prevention of the spread of zymotic disease by the agency of milk, that the special sanitary supervision and inspection of cowsheds, dairies, and milk shops, should be entrusted to the Local Authorities, the Medical Officers of Health, and the Sanitary Inspectors of the respective districts.”

Communications were addressed to the Lord President of the Council, to the President of the Local Government Board, and to the Vestries and the District Boards, with the object of preventing the perpetuation of the error involved in placing the supervision of cowsheds and dairies under the Metropolitan Board. Whether they would have been attended with the desired success it boots not now to enquire, for, owing to pressure of business, the Bill could not be persevered with, and I am informed, on good authority, that, as a result of opposition to the measure, coming from north of the Tweed, it is not intended to deal with the subject in the current session, although the necessity for legislation, upon the lines of the Bill of last year, has been fully admitted by the Vice President of the Council, and by the Local Government Board.

### BAKEHOUSES.

In the last three or four of my annual reports I have had occasion to deprecate the transfer of the duty of supervising bakehouses, from the sanitary authority to Factory Inspectors, effected by the repeal of “The Bakehouses Regulation Act, 1868,” by “The Factory and Workshop Act, 1878.” How this came about it is needless now to enquire: suffice it to say that, as I pointed out in my last report, (pages 138-148), when I dealt very fully with the subject, systematic inspection of bakehouses in the metropolis—as a whole—fell



into abeyance. The Factory Inspectors were too few to take up the duty, which the Sanitary Authorities, as a rule, had ceased to perform ; these, moreover, no longer having a statutory power of entry ; the result being that many of the bakehouses fell into a deplorable state of neglect, as testified by the reports of the factory inspectors themselves. Happily, the representations addressed to the Government, to which I referred in my last report, together with the statements of the Chief Factory Inspector himself, satisfied the Government that an error had been committed in taking away from the sanitary authority the right to exercise a sanitary supervision over these establishments ; and so, in the last days of the session of 1883, an Act was passed, (" Factory and Workshop Amendment Act, 1883 "), by which the legislation of 1878 was revoked, and their former position was restored to the Vestries and District Boards, who are now the " local authority," so far as relates to cleanliness, ventilation, overcrowding, and other sanitary conditions of bakehouses, with powers to enforce sections 3, 33, 34 and 35 of the " Factory and Workshop Act, 1878." The recommendations of your Vestry went considerably beyond the point reached by the new Act, being substantially in agreement with the views I had set out in my annual report for 1881, when I said—

" What really is required is a proper ' Bakehouse Regulation Act,' providing for the licensing of bakehouses, and conferring on Sanitary Authorities the power, which they should be obliged to exercise, of regulating the trade by bye-laws, uniform for the Metropolis, dealing with—

- (1) The position and construction, including lighting and ventilation of bakehouses.
- (2) The periodical cleansing of them ; and
- (3) The materials and utensils employed in the manufacture of bread."

But, however desirable that the above recommendations should be carried out, it was felt to be useless to press for their adoption by Parliament last year. I took the opportunity, nevertheless, of drawing the attention of the Local Government Board to the imperfections of the Bill, and it

is to be hoped that at a convenient season a more complete measure may be introduced. Happily, the public and the operatives are in complete agreement with sanitary officials as to the necessity of thorough supervision of bakehouses by the sanitary authority. In our own parish, control over the bakehouses by your Vestry had never been wholly lost, as I felt it my duty to instruct the sanitary inspectors to visit them periodically, as a part of their routine work; and therefore, although there is much to desire in regard to the position and the arrangements generally of the premises,—for few of them were built for use as bakehouses,—yet, on the whole, sanitary conditions have been fairly maintained, and when the powers now possessed by your Vestry shall have been fully exercised, there will remain, I hope, little cause for complaint.

This subject of bakehouse regulation had often been under the consideration of the Society of Medical Officers of Health, and upon the passing of the new Act the Society prepared “Suggestions for Regulations with respect to Bakehouses,” for the guidance of local authorities. The Acts do not expressly authorise the making of regulations, but it was felt that much good would result should local authorities see fit to adopt the regulations for the guidance of their officers, and communicate them to the proprietors of bakehouses, as an indication of the requirements of the Acts. This course was followed by your Vestry: the Regulations have been printed in large type, and mounted on cardboard, and a copy has been supplied to each bakehouse proprietor in this parish.

The Regulations are as follows :—

#### REGULATIONS.

1. Every Bakehouse shall be kept in a cleanly state, and free from effluvia arising from any drain, privy, water-closet, or other nuisance. The floors shall be carefully swept at least once every 24 hours, and the sweepings shall be immediately placed in an impermeable covered receptacle, and removed from the bakehouse at not longer intervals than every seven days.

2. All the inside walls of the rooms of the bakehouse, and all the ceilings or tops of such rooms, and all the passages and staircases of the bakehouse, shall either be painted with oil, or varnished, or lime-washed. Where painted with oil or varnished, there shall be three coats of paint or varnish, and the paint or varnish shall be renewed once at least in every seven years, and shall be washed, with hot water and soap, once at least in every six months. Where lime-washed the lime-washing shall be renewed once at least in every six months. The cleansing should be done in the months of April and October.
3. The troughs and all the utensils used in the making of bread and pastry shall be kept scrupulously clean.
4. A place on the same level with the bakehouse, and forming part of the same building, shall not be used as a sleeping place.
  - (a) Unless it is effectually separated from the bakehouse by a partition extending from the floor to the ceiling.
  - (b) Unless there be an external glazed window of at least 9 superficial feet of area, of which at the least  $4\frac{1}{2}$  superficial feet are made to open for ventilation.
5. No water-closet, earth-closet, privy, or ash-pit shall be within, or communicate directly with, the bakehouse.
6. Any cistern for supplying water to the bakehouse shall be separate and distinct from any cistern for supplying water to a water-closet.
7. No drain or pipe for carrying off fæcal or sewage matter shall have an opening within the bakehouse, and every sink-waste, or other pipe used for carrying off surface water within the bakehouse, shall be efficiently trapped and disconnected from any drain.
8. Every Bakehouse shall be efficiently lighted, shall be ventilated so as to render harmless all gases and dust, and shall not be overcrowded while work is carried on therein.
9. Every Bakehouse shall be used for the purposes of the trade only.
10. No animal shall be kept in the bakehouse on any pretence whatever.
11. No person suffering, or who has recently suffered, from any infectious disease shall be permitted to enter the bakehouse, or take part in the manufacture or sale on the premises, of bread, biscuits or confectionery.
12. The owner or occupier of a bakehouse shall give immediate notice to the Medical Officer of Health of any case of infectious disease occurring on the same premises as the bakehouse.

#### PENALTIES.

Every bakehouse in which there is a contravention of Sections 3, 33, and 34 of the Factory and Workshop Act, 1878, which provide for the

sanitary condition and cleansing of the bakehouse, shall be deemed not to be kept in conformity with the Act, and the occupier thereof is liable for default to a fine not exceeding *ten pounds*.

The use of a bakehouse for sleeping purposes, or of a room on the same level as the bakehouse, insufficiently separated from it and insufficiently ventilated and lighted, is punishable under the 35th Section of the same Act by a fine not exceeding *Twenty Shillings* for the first offence, and of a sum not exceeding *Five Pounds* for every subsequent offence.

An infringement of the 15th Section of the Factory and Workshop Act, 1883, which prohibits—

A direct communication between a water-closet, earth-closet, privy, or ash-pit, with the bakehouse;

The supply of water to a bakehouse from a cistern also supplying a water-closet;

The opening into a bakehouse of a drain carrying off fæcal or sewage matter;

is punishable by a fine not exceeding *Forty Shillings*, and a further fine not exceeding *Five Shillings* for every day during which the infringement is continued after a conviction.

It only remains to add, that the number of bakehouses in this parish is 146; 83 of these being in the district north of Uxbridge Road, and 63 in the remainder of the parish south of that road.

## REGULATIONS WITH REGARD TO HOUSES LET IN LODGINGS, &c.

The Sanitary Act, 1866, Section 85, enables the Local Government Board, on the application of a Nuisance Authority, by Notice to be published in the London Gazette, to “declare the following Enactment to be in force in the district of such Nuisance Authority, and from and after the publication of such notice the Nuisance Authority shall be empowered to make Regulations for the following matters: that is to say:—

- 1.—For Fixing the Number of Persons who may occupy a House, or Part of a House, which is Let in Lodgings, or occupied by Members of more than One Family.
- 2.—For the Registration of Houses thus let or occupied in Lodgings.
- 3.—For the Inspection of such Houses, and the keeping of the same in a cleanly and wholesome state.

4.—For enforcing therein the provision of Privy Accommodation and other appliances and means of cleanliness, in proportion to the number of Lodgings and Occupiers, and the cleansing and ventilation of the Common Passages and Staircases.

5.—For the cleansing and lime-whiting at stated times of such premises."

The Sanitary Law Amendment Act, 1874, Section 47, enables regulations made under the 35th Section of The Sanitary Act, 1866, to extend to

" Ventilation of rooms,

Paving and drainage of premises,

The separation of the sexes, and to

Notices to be given, and precautions to be taken in case of any dangerously infectious or contagious disease, under the powers of this Act, or of the principal Act, or of the Acts therein mentioned."

The Nuisance Authority may provide for the enforcement of the regulation by penalties, but regulations are not of any validity unless and until they shall have been confirmed by the Local Government Board.

At the meeting held November 21st, your Vestry resolved unanimously, "with reference to the large and increasing number of houses which are let in lodgings, or occupied by members of more than one family, and to the necessity in the interest of public health of sanitary supervision of such houses," to take steps for carrying out the provisions of the above sections of the Sanitary Acts.

The subject had been under consideration in 1878, when the Sanitary Department was reorganized and the staff enlarged, and in an exhaustive report on the work of the Department, the Special Purposes Committee recommended (*inter alia*) that the provisions of the Acts be put in force by the making and carrying out of Regulations, &c.

No action was taken upon this part of the Committee's report at the time; but in the following January (1879) your Vestry referred it again to the Committee, to consider the steps necessary to be taken for carrying out the above recommendation. The Committee resolved, in April, to defer the further consideration of the subject, pending an inquiry

they requested me to make with regard to towns and places where the powers of the Acts had been exercised. Meanwhile I had brought the subject under the notice of the Society of Medical Officers of Health, and the Society, after full deliberation, had resolved “ (1) That the Acts (viz., Sanitary Act, 1866, section 35, and the Sanitary Law Amendment Act, 1874, section 47) are practicable; (2) That it is desirable they should be put into operation in London and other large towns; (3) That it is desirable to have a uniform code of regulations for the Metropolis, and (4) That it is advisable the Society should undertake the framing of such a code.”

The Council of the Society, to which the matter was referred, requested me to draft a code. and the draft so prepared having been approved by the Council, and subsequently by the Society, it was sent to nearly two hundred medical officers of health in different parts of England, and suggestions by way of amendment were invited. All such suggestions having been duly considered, the Council finally submitted the draft, as amended, to the Society, by which it was approved, and in May, 1879, the regulations were published “for the guidance of Urban Sanitary Authorities.”

I brought these proposed regulations under the notice of the Special Purposes Committee, and on the 17th June, 1879, they reported, recommending that “the regulations proposed by the Society of Medical Officers of Health” be adopted and forwarded to the Local Government Board for sanction. This report was referred back by your Vestry. As I have already stated, I had been requested in April, 1879, to ascertain to what extent the Acts had been adopted in other Metropolitan parishes, and throughout the country generally, and the result of my enquiries having been to show that the Acts had been adopted in very few places only, whether Metropolitan or Provincial, and that in the majority of such places the provisions had been carried out in a somewhat perfunctory manner, the Committee finally advised your Vestry

(in July), that it was not expedient to adopt the Acts at that time. The Committee were influenced to some extent, in coming to this decision, by a statement that the Board had under consideration the desirability of framing model bye-laws for the guidance of sanitary authorities, the issue of which it was thought desirable to await. Model regulations for "Houses let in Lodgings" were issued by the Board in the following year (1880), framed with regard to Section 90 of the Public Health Act, 1875, (38 and 39 Vict., c. 55). The provisions of that section are practically identical with those of sec. 85 of the Sanitary Act, 1866, and sec. 47 of the Sanitary Law Amendment Act, 1874, which were incorporated in the general Act of 1875, from the operation of which the Metropolis is expressly excluded. But the regulations were not quite suitable for the circumstances of the Metropolis, and your Vestry took no further action in the matter at that time.

At the close of the year 1883, the Local Government Board, by notice published in the *London Gazette*, declared the provisions of the Acts to be in force in all parts of the Metropolis, and they issued model Regulations, 39 in number, for the guidance of the Vestries and District Boards, which had not already made regulations. Your Vestry referred the Board's communication and the model regulations to the Works, Sanitary, and General Purposes Committee, and the Committee having prepared a code of regulations which was adopted by your Vestry, it was forwarded to the Board for their sanction.

At the present writing, (July), the sanction of the Board has not been accorded to the proposed regulations which are as follows :—

#### REGULATIONS.

FOR HOUSES OR PARTS OF HOUSES, WHICH ARE LET IN  
LODGINGS, OR OCCUPIED BY MEMBERS OF MORE  
THAN ONE FAMILY.

Made by the Vestry under, and in pursuance of, The Sanitary Act, 1866,  
and The Sanitary Law Amendment Act, 1874, at a meeting held on

the 13th day of February, 1884; and confirmed according to Law by the Local Government Board on the——day of——, 1884.

#### INTERPRETATION OF TERMS.

In these Regulations the following words and expressions shall have the meanings hereinafter respectively assigned to them, unless the context otherwise requires: that is to say,

“Registered House.”—A house, and all the premises appurtenant to such house, registered under section 35 of The Sanitary Act, 1866.

“Owner.”—Any person receiving the rent of a registered house from the keeper or any lodger on his own account, or as trustee or agent for any other person, or as receiver or sequestrator appointed by the High Court of Justice, or under any order of the Court, or who would receive the same if the property were let to a tenant or tenants.

“Keeper.”—The registered occupier of a registered house, or the person liable to pay the rent of the owner; or the rent receiver or his appointed agent, when the whole house is let in tenements.

“Lodger.”—A person to whom any room or rooms in a registered house may have been let as a lodging or for his use or occupation.

“Vestry.”—The Vestry of the Parish of St. Mary Abbots, Kensington, being the “Nuisance Authority” under The Sanitary Act, 1866.

“Inspector.”—Any person specially appointed by the Vestry.

“Office.” (of the Vestry, of the Medical Officer of Health, and of the Inspector).—The Town Hall, Kensington High Street, W., where all notices required to be given to the Vestry, or to the Medical Officer, or to the Inspector by the owner or keeper of, or any lodger in, a registered house, must be addressed.

#### REGISTRATION.

1. A house or part of a house let in lodgings or occupied by members of more than one family may be registered by the order of the Vestry at its discretion, and any house so registered—hereinafter referred to as a “registered house”—shall continue to be registered until otherwise ordered by the Vestry notwithstanding any change in the ownership or tenancy thereof, if the house continue to be let in lodgings. Notice of such registration shall be given to the owner of the registered house, together with a copy of these regulations. Notice shall also be given to the keeper, together with two copies of these regulations, one of which copies shall by him be affixed, and kept affixed, to some conspicuous part of the house where it may be seen by every lodger. One month after such notice of registration these regulations shall come into force.



## NUMBER OF LODGERS.

2. The minimum space for each adult in any room in a registered house occupied only as a sitting room, or occupied only as a bed room, shall not be less than 300 cubic feet; and in any room occupied as a bed room only not less than 400 cubic feet. In fixing the number of persons that may lawfully occupy any room two children under the age of 12 years may be counted as one adult. The number of persons who may lawfully occupy the several rooms in a registered house shall be specified on a card, which shall be a copy of the register, and shall be given to the keeper, and by him shall be shown to every lodger. The card shall be preserved in a legible condition, and it shall be produced to the Inspector on application.

## SEPARATION OF THE SEXES.

3. The keeper of a registered house, and any lodger therein, shall not suffer more than two persons of opposite sexes, if above the age of 12 years, to occupy the same sleeping room.

## DRAINAGE.

4. The owner of a registered house shall keep all drains and drainage apparatus in proper working order and good sanitary condition, so as to preserve the house in a wholesome state, to the satisfaction of the Vestry.

## PRIVY ACCOMMODATION.

5. The owner of a registered house shall provide and maintain privy accommodation in the proportion of one properly constructed water-closet for every twelve adults\* lawfully occupying the house. Every water-closet shall be provided with a properly fitting door, and all requisite fastenings, and with all requisite water supply apparatus, and with a sufficient supply of water so as effectually to cleanse the same, either from a service or flushing box, or from a cistern independent of the cistern provided for the general water supply of the house, and with adequate means of ventilation into the outer air. The soil-pipe shall be of impervious material and made air-tight at the joints and shall be ventilated to the satisfaction of the Vestry.

The keeper of a registered house shall cause every water-closet to be ventilated and kept in a cleanly and wholesome condition.

## WATER SUPPLY.

6. Unless the registered house has a constant supply of water, the owner shall cause it to be provided with a cistern, or cisterns, of a capacity adequate for the supply of not less than 12 gallons of water daily for every adult\* lawfully occupying the house, and shall maintain and keep

---

\*Two children under 12 years of age may be counted as one adult.

the same in proper repair : every cistern shall be properly placed above ground, constructed of impervious material, covered with a properly-fitting lid, and provided with an overflow or warning pipe, which shall not be connected with any soil-pipe, house drain, or common sewer.

The keeper of the registered house shall cause every cistern to be kept covered, and to be cleansed at least once every two months, and shall exercise due care to preserve the water from contamination.

#### ASH-PIT.

7. The owner of a registered house shall cause it to be provided with a properly constructed ash-pit, properly covered, and fitted with a slide or doors, and placed in the best practicable position to the satisfaction of the Vestry, so as not to be a nuisance or foul the drinking water, and shall maintain and keep the same in proper repair: the ash-pit shall be of sufficient size to contain the ashes, and refuse of the house accumulated within the space of one week.

The keeper of a registered house shall cause the ash-pit to be kept in a cleanly and wholesome condition and covered, and the doors thereof to be kept closed. The ash-pit shall be emptied at least once in every week and no filth or wet refuse shall be thrown therein. The keeper shall allow the contents of the ash-pit to be removed on application by any properly-appointed dustman.\*

#### CLEANLINESS.

8. The owner of a registered house shall cause the walls and ceilings of every room and of the staircases, passages, water-closets and out-houses thereof, to be thoroughly stopped, cleansed, and, where not papered, well and sufficiently whitewashed or coloured, when necessary or when required by the Vestry. He shall strip papered walls of any room after the occurrence therein of any dangerously infectious or contagious disease or when required by the Vestry.

The keeper of a registered house shall cause the passages and staircases thereof, and the floor of every room, and the walls, woodwork, and windows thereof, to be cleansed when necessary, so that the same may be kept at all times in a cleanly and wholesome condition.

#### VENTILATION.

9. The owner of a registered house shall provide all requisite means for the ventilation of the rooms, passages, and staircases thereof, to the satisfaction of the Vestry.

---

\* Notice of omission by the dustman to empty the ash-pit on the appointed day of the week should be forwarded by the keeper of the registered house to the Inspector, at his office, without delay. Every keeper and lodger is advised and requested to burn all vegetable and other offensive refuse as far as practicable.

The keeper of a registered house shall cause every room therein, and the passages and staircases thereof, to be thoroughly ventilated daily to the satisfaction of the Inspector.

#### WASH-HOUSE, CELLAR, YARD, AND AREA.

10. The owner of a registered house shall cause every wash-house, cellar, yard and area thereof to be properly paved and drained to the satisfaction of the Vestry, and shall lime-whiten the walls of the wash-house, cellar, yard and area, when necessary, or when and as required by the Inspector.

The keeper of a registered house shall cause every wash-house, cellar, yard and area to be properly swept and thoroughly cleansed when necessary, or when required by the Inspector, and shall not allow any accumulation of rags, bones or other offensive refuse, or the accumulation of any matter or thing so as to interfere with the good Sanitary condition of the premises, or with the proper lighting and ventilation of the house.

#### DUTIES OF LODGERS.

11. Every lodger in a registered house shall comply with the regulations numbered 2, 3, 8, and 9, so far as they relate to cubic space, to separation of the sexes, and to cleansing and ventilation of rooms under his control : and every lodger having the exclusive use of a water-closet, a water cistern, an ash-pit, a wash-house, a cellar, a yard or an area, shall comply with the regulations numbered 5, 6, 7 and 10 so far as they relate to the keeping clean and wholesome of such water closet, water cistern, ash-pit, wash-house, cellar, yard or area.

#### INFECTIOUS DISEASES.

12. The keeper of a registered house shall give immediate notice in writing to the Medical Officer of Health, or to the Inspector, and verbal notice to every lodger, when anyone therein is ill or dead of small-pox, typhus, typhoid fever, scarlet fever, diphtheria, cholera, or any other dangerously infectious or contagious disease, and he shall carry out without delay all measures for disinfection which the Medical Officer or the Inspector may direct.

Every lodger in a registered house shall give immediate notice in writing to the keeper and to the Medical Officer of Health, or to the Inspector when anyone is ill or dead of small-pox, typhus, typhoid fever, scarlet fever, diphtheria, cholera, or any other dangerously infectious or contagious disease in any room occupied by him, and he shall carry out without delay all measures for disinfection which the Medical Officer or the Inspector may direct.

**ANIMALS.**

13. The keeper of a registered house, or any lodger therein, shall not suffer any animal to be kept in any part thereof, under his control, so as to render the house unclean or unwholesome, or so as to be a nuisance or injurious to health, and the keeper and every lodger shall remove any animal improperly kept forthwith, on receiving a notice to that effect from the Inspector.

**INSPECTOR.—POWER OF ENTRY.**

14. The keeper of, and every lodger in, a registered house shall give to the Vestry and to the Inspector all such information and assistance as may be required for the registration of the house, and for the purpose of carrying out these regulations, and shall allow such house and every part thereof to be inspected by the Inspector, on his application, at any hour; and any owner, keeper, lodger, or other person refusing to admit him, or obstructing him in the execution of his duty, shall be deemed to be guilty of an offence against this regulation.

**PENALTIES.**

15. Every person who offends against any of the foregoing regulations shall be liable, on conviction before a Court of Summary Jurisdiction, to a penalty not exceeding forty shillings, together with the costs of proceedings, for any one offence, with an additional penalty not exceeding forty shillings, for every day during which a default in obeying such regulations may continue.

**REFUSE.**

Great difficulty is experienced in preventing nuisance from accumulations of offensive matters coming under the general description, "REFUSE." The difficulty is common to all parts of the Metropolis, and calls for legislative interference for its abatement. With a view to such steps being taken, I brought the subject under the notice of the Society of Medical Officers of Health in 1880, the result being that a Special Committee was appointed to consider the subject. The report of the Committee was printed in my Annual Report for 1880 (*page 114*). The conclusions at which they arrived may be summed up as follows:—

1. *Trade Refuse.*—The Nuisance Authority should have power to collect, remove, and dispose of the trade refuse of butchers, fishmongers, poulterers, greengrocers, etc., at the reasonable cost of the producers.

The collection of such refuse should be made in the early morning, and the removal effected in specially constructed vehicles : if practicable the refuse should be utilized ; otherwise it should be destroyed by fire.

2. *House Refuse.*—In view of the increasing distance to brickfields, house refuse will have to be dealt with by fire in specially constructed apparatus of the “Destructor” type, by which its bulk may be reduced some 75 per cent., the resulting product moreover, being at once innocuous, and useful for road making and other purposes : the refuse should be collected daily, and “dust-bins” abolished.
3. *Stable and Cowshed Refuse.*—The Nuisance Authority should have power to collect the refuse at the reasonable cost of the owner : cowshed refuse daily, in vehicles designed to prevent slopping and effluvium nuisance : stable refuse periodically, the refuse, meanwhile, to be stored in suitable receptacles—paved, drained, and enclosed within iron racks, above ground.
4. *Conclusion.*—Legislation is necessary to give effect to the above recommendations, and to compel railway and canal companies to carry refuse from towns at a reasonable, while remunerative, rate.

### HOUSE REFUSE.

The collection of ashes, and miscellaneous refuse, from upwards of 20,000 houses, over an area of 2,200 acres, and to the extent of 84,000 loads in a single year, is no light task, and complaints of neglect by the dustmen were habitual when the work was carried out under the contract system. So frequent, indeed, did complaints become at last, that your Vestry, desirous of satisfying the legitimate requirements of the parishioners, determined, in 1877, to abolish the contract system altogether, and to undertake dust-collection with an ample staff and plant. The results have justified the change : the work has ever since been done in an increasingly satisfactory manner ; complaints are rare, and applications, even, for the removal of ashes, are now comparatively few. Sometimes, moreover, when your Vestry, or the dustmen have been censured for supposed neglect, it has turned out on enquiry that domestic servants were to blame ; such excuses as that the hour of the dustman’s call was “inconvenient” ; or that “the steps had just been cleaned” ; being deemed sufficient for the perpetuation of a nuisance.

And nuisance, it may be averred, arises almost solely from the improper use of the receptacle by the deposit therein of animal and vegetable refuse, of which it may be said that the former has an appreciable value, and should be utilized, while the latter admits of being burned on the kitchen fire. A notification to this effect was left at every house in the parish in 1873, and again in 1883.

A strong effort has been made to systematise the work of dust-collection by dividing the parish into districts, and by providing for the inspection of the dust-bins, and for supervision of the "dusting-gangs." A systematic call is now made at every house once a week, and further improvement is scarcely possible until the whole abominable system of dust-harbourage shall have given place to the only rational practice of daily collection from moveable receptacles deposited in the early morning on the footway, ready for the call of the dust cart.

Delay in the removal of ashes, at present, arises not unfrequently from the exceedingly inconvenient position of the receptacle, *e.g.*, in a deep area, to which there is practically no access save by ladders—a short one on the foot pavement, and a longer one in the area. Apart from the question of danger to the dustmen in the use of the ladders, it is a question whether your Vestry should not insist on some more satisfactory provision being made, as by steps and an area gate, giving safe and convenient access to the receptacle? In some cases where there are steps, householders actually refuse to allow the gate to be unlocked, thus wilfully endangering the safety of the unfortunate dustmen.

#### STABLE REFUSE.

For several years I have felt it my duty to draw your Vestry's attention to the removal, or rather to the *non*-removal, of stable refuse. Regulations have been framed and published enjoining "periodical removal of manure, etc.' by the owners, under the provisions of the Sanitary Act,

1866, which prescribes a penalty of twenty shillings a day for default. But, still, the most frequent cause of complaint by parishioners, and the most frequent of recurring nuisances, arises from the neglect of this obligation. Proceedings have been taken occasionally to enforce the regulations, but not with uniform success, the offenders having usually been able to satisfy the Magistrates of their inability to perform the duty required of them. The difficulty not seldom originates with the coachman, who will not give the refuse away, while the farmer or his carter will not pay for it. At certain seasons, *e.g.*, hay-making time and harvest, there is a real difficulty in getting the receptacles cleared, farmers being too busy to send their carts into town, or, when they do, to allow them to stay to collect the refuse. The refuse, nevertheless, has value, if it could only be got on to the land without undue cost. The quantity made in this large parish, with its 150 mews, is very great, and of an aggregate value probably more than sufficient to pay for collection and removal from London. It is a question, whether your Vestry should not undertake such collection and removal, as the law allows, "with the sanction of the owner?" a sanction which would be cheerfully given in many instances, and which, probably it would not be difficult to obtain in all cases, were it understood that the "Regulations" would be enforced. The regulations require that the manure should be removed "every alternate day." Twice a week in summer, and once a week in winter, would probably suffice for all practical requirements, in ordinary cases, if the manure were stored in properly constructed receptacles above ground.

#### PUBLIC URINALS.

There are only ten public urinals in this great Parish, a very inadequate number, and no public water closets save at the rear of the Vestry Hall. Your Vestry's powers to provide such "necessary accommodation" are ample, but difficulty has been experienced in giving effect to the provisions of the

88th section of the Metropolis Management Act, which enables the Nuisance Authority to "provide and maintain urinals, water closets, and like conveniences, for both sexes, in situations where they deem such accommodation to be required,"

Owing to the opposition raised by inhabitants in the neighbourhood of the sites selected for such proposed erections, a proposition was made, by a private individual firstly, and afterwards by a Company, to provide *châlets* for the convenience of the public, as a commercial speculation ; but the Law and Parliamentary Committee having reported that your Vestry have no authority for placing obstructions in the public streets, the matter fell through. In some other parishes the scheme has been entertained favourably, and *châlets* have been erected : there is one at Shepherd's Bush Green. Should the system be found to work satisfactorily, means will doubtless be found to overcome any legal difficulties that may appear to stand in the way of its extension.

#### PUBLIC BATHS AND WASHHOUSES.

The Commissioners have recently obtained an Act enabling them to purchase the site at Notting Hill, to which I referred in my last report as being suitable for the purpose. It is to be hoped, therefore, that we shall see next year the realization of our long delayed hopes for the provision of Baths and Wash-houses. I am of opinion that great good might be effected by the provision of a number of buildings, on a modest scale, in different parts of the parish, to which the poor might resort for the purpose of washing clothing, and that the question of public wash-houses might with advantage be separated from that of public baths.

#### MORTUARY.

The Mortuary in the Parish Churchyard, at the rear of the Vestry Hall, was opened in July, and in the first year nearly fifty bodies were deposited. The Mortuary



comprises two chambers, one for infectious, and the other for non-infectious, bodies, separated by a "place provided for *post-mortem* examinations." This "place" is designed "for the reception of dead bodies for and during the time required to conduct any *post-mortem* examination ordered by the Coroner," who "may order the removal of the body for carrying out such *post-mortem* examination, and the re-removal of such body, such costs of removal and re-removal to be paid in the same manner, and out of the same fund as the costs and fees for *post-mortem* examinations when ordered by the Coroner." (Sanitary Act, 1866, sec. 28.) The Coroner has ordered the removal of several bodies, and now appears desirous of availing himself of the Mortuary, which is highly convenient for himself and for Medical witnesses who have to make *post-mortem* examinations.

In congratulating your Vestry upon the completion of the handsome and appropriate building now dedicated to public use, I may, perhaps, be allowed to recall the fact that in my first annual report, for the year 1871, I drew attention to the need of a mortuary. Shortly afterwards a Special Committee was appointed to consider how this want might be supplied. The Committee devoted much time to the subject, but were ultimately obliged to report that they could not obtain a site. In my annual report for 1873 I first referred to the Parish Churchyard as a suitable site, but the suggestion was not approved by the then senior Churchwarden. Gradually, however, the idea of placing the Mortuary in this position grew into favour, and was ultimately accepted as the solution of the site-difficulty.

A question has been raised, whether one Mortuary is sufficient? Without committing myself to a final answer to this question I would point out that the Mortuary site is central, and at no very great distance from any part of the parish. It is the fact, moreover, that, once a body has to be removed, the cost is much, if not quite, the same, whether

the distance be a hundred yards or a couple of miles. I could not recommend your Vestry, therefore, to entertain the question of a second mortuary until the present building has been proved to be of insufficient capacity, or inconvenient in position. It is a real difficulty to get people to avail themselves of the accommodation furnished by a mortuary; this difficulty, however, I have always felt would be, to a certain degree, overcome by the sacred associations connected with the site on which the Mortuary is placed. I trust the building will be used more and more every year, and that it will prove a benefit to our poorer parishioners, who are now often condemned, in following an unwise custom, to retain their dead for many days in rooms occupied by the living.

Few, absolutely, as were the bodies admitted during the first year many of the cases were of a nature to prove the necessity, and to justify the provision, of the mortuary. In course of time the advantages of the institution must come to be more and more appreciated and larger use of it will then be made. If only medical men and clergymen would inculcate the propriety of removal of the dead to the mortuary in suitable cases, there would be no cause of complaint on the score of its disuse. Much might be done if medical men would give the certificate necessary in respect of infectious bodies, and bodies in an offensive condition from decomposition, so as to enable a Justice to order the removal of such bodies to the mortuary, under Section 27 of the Sanitary Act, 1866. Medical men highly appreciate the facilities offered by the mortuary when they have to make *post-mortem* examinations; and well they may, the inconvenience of making such examinations in private houses being well known, and the objections to the practice in the homes of the poor very serious.

**MORTUARY KEEPER'S RESIDENCE :—**Some inconvenience has resulted from the difficulty, hitherto insuperable, of finding lodgings for the Mortuary Keeper within a reasonable

distance of the Mortuary. With a view to enable him to be always at hand when wanted, the Works, Sanitary, and General Purposes Committee negotiated a preliminary agreement with the Churchwardens, for obtaining a site on the Churchyard adjoining the Mortuary, whereon to erect a lodge for the keeper. A faculty would have been necessary to give effect to this agreement, and this the Churchwardens were willing to apply for. Nothing, unfortunately, came of the matter, your Vestry having declined to accede to the terms of the Churchwardens which involved a payment of money by way of compensation for the land. The money was to have been expended in placing the Churchyard in proper order. It is to be desired that an arrangement should yet be made with the Churchwardens, to secure the site if the matter is still open to negotiation. The Churchyard, however, has been put in order by a charge upon the Poor rate, which the parishioners pay, and it is probable that the rate will be further charged with the cost of keeping it in decent condition. Nothing, therefore, has been saved, but much has been lost, in point of public convenience, by the failure of the negotiations with the Churchwardens. These gentlemen approached the consideration of the subject in so friendly a spirit that I would fain hope they will still be found willing to co-operate with your Vestry for the public advantage in this matter, especially as the improvement they were so desirous of effecting has been brought about at the public cost, although not out of the rates controlled by your Vestry.

#### CORONER'S COURT.

It is now very generally the practice to provide in connection with a mortuary, a building in which the Coroner can hold his Court, thus rendering it unnecessary for the holder of that ancient and dignified office, to have to resort to a public house for the needful accommodation. But this step seemed unnecessary in Kensington, as there are rooms

at the Vestry Hall, to which the mortuary is adjacent, convenient and suitable for the purpose. Accordingly, the Works, Sanitary, and General Purposes Committee authorized me to communicate with the Churchwardens, who, as trustees of the Vestry Hall, kindly consented to place a room at the disposal of the Coroner whenever required, on due notice being given, and subject to the payment which the Coroner is authorized to make, and does make, for such accommodation provided elsewhere for the same purpose.

About 150 inquests are held annually in the Parish, and the majority of them, probably, could be held at the Vestry Hall, were it the pleasure of the Coroner, in whose power it is, as already mentioned, to order bodies to be removed to the "place provided for *post-mortem* examinations," when such examination is necessary. In such cases—about two-thirds of the whole number—it would seem a natural thing, for a judge, for such the Coroner is, to hold his Court in a public building; but, for whatever reason, the Coroner continues to hold inquests at public houses.

On more than one occasion juries have recently complained of being taken to public houses in the discharge of their duties, and have expressed a desire that the Coroner would hold his court at the Vestry Hall. Jurymen have also complained that, because they live in the vicinity of the mortuary, they have been summoned to serve on inquests held on bodies removed from a distance to the mortuary. The Coroner stated that a jury should, for obvious reasons, be summoned from the locality where the death took place, and this no doubt is a right view of the matter. The objection was anticipated, and it is one that could be easily overcome by the Coroner's officer, viz.:—by his making a judicious selection of jurymen from different parts of the parish, and so arranging his list as not to have to call with undue frequency upon any person to serve on a jury.

### DISINFECTION.

During the year ended March 25th, 1884, a large number of infected articles of clothing, bedding, furniture, &c., were satisfactorily disinfected by the contractor at the cost of your Vestry, the owners being too poor to bear the expense. The weight of the articles was more than 9 tons: their number 4,015; and the cost of the process £181. Two hundred and sixty rooms in 215 houses were disinfected with sulphurous acid by your Vestry's officer, no charge being made in the majority of instances. Many rooms were disinfected by the contractor, as well as numerous parcels of clothing, bedding, &c., at the cost of persons able to pay.

### WATER SUPPLY.

PROFESSOR FRANKLAND'S REPORT.—Believing it desirable that your Vestry, as the body responsible in this great parish for carrying into effect the provisions of sanitary legislation, should receive the best information on all points connected with the water supply, a subject of great importance in relation to the public health, it has been my custom, year by year, to summarise the reports prepared annually by Professor Frankland, for the Registrar-General, and by Colonel Sir Francis Bolton, R.E., the "Water Examiner," appointed under the Metropolis Water Act, 1871. I do so again. Dr. Frankland deals mainly with the quality of the water in its chemical and microscopical aspects, and in respect to its fitness for dietetic and domestic purposes; he being, as is well known, adverse to riparian sources of supply: while Sir Francis Bolton's observations have reference, *inter alia*, to the condition of the water in bulk, at the intakes, and to its physical qualities when delivered to the consumer—in a word, to whatever relates to the collection, filtration, storage, and distribution of the water.

London is mainly supplied from the rivers Thames and Lea, but a considerable and increasing quantity of water is obtained from deep wells sunk in the chalk, not only by the Companies which obtain their entire

supply from that source, but also by some of the old Companies, which thus supplement their intake of river water. The average daily volume supplied per head of population in 1883 was 28·4 gallons.

Dr. Frankland is consistent in his preference of "deep well water," taking it as the standard of purity in comparative observations on the waters generally. In a previous report he described it as being "delicious and wholesome," and uniformly excellent for dietetic purposes; maintaining that in the interests of temperance and public health, it should, as soon as possible, be substituted for that portion of the Metropolitan supply which is drawn from polluted rivers. This "pure spring water," he said, is "everywhere abundant in the Thames basin: in dry seasons it constitutes the sole supply of the Thames and the Lea, and, even after the most protracted drought, more than 350,000,000 gallons of it daily flow over the weir at Teddington, whilst a further very large volume of it joins the Thames lower down." He considered that it would be a valuable boon to London if even a small fraction of this prodigal supply could be collected, preserved from irremediable pollution, and distributed to those portions of the Metropolis which are not at present supplied with such water. The principal objection to it is its hardness, but this is an objection easily surmounted by "Clark's process."

The "hardness" of water represents the weight of carbonate of lime, or its equivalent of other soap-destroying substances, found in 100,000 parts of water. The average hardness of the Thames water delivered in London last year was 19·9; of the Kent Company's water 28·0; and of the Colne Valley Company's water only 7·1. All hard water *must* be softened before it can be used for washing linen: when it is softened in detail by the laundress, the operation costs, for an equal volume of water, about eighty times as much, (for soap), as it costs when conducted on a large scale by a water company. The only water suitable for washing delivered in London during the past year was that of the Colne Valley Company, which was rendered soft by Clark's process before distribution.

All waters, save artificially prepared distilled water, contain more or less "solid matter." A large proportion of this solid matter, consists of mineral salts which are unobjectionable in drinking water, but they render the water hard. A small proportion of the solid matter on the other hand is organic. Small quantities of vegetable organic matter are not objectionable in drinking water, but the organic matter in river water, which receives sewage, may at any time become dangerous to health. The task of banishing sewage pollution from the river, is regarded as hopeless.

The deep-well waters delivered by the Kent Company and by the Tottenham Board of Health, contained the largest proportions of solid matter; but the deep well-water, derived from the same source, and supplied by the Colne Valley Company, contained little more than one-third the quantity found in the river waters, and little more than one-fourth of that in the

Kent Company's water; this comparative freedom from saline matters being attained by adding a small quantity of slaked lime to the water before it leaves the Company's works. All the water supplied to the Metropolis would be improved by being submitted to the same (Clark's) process.

The organic impurities found in the river waters, derive their importance, as already intimated, from being chiefly of animal origin. Last year the amount of organic matter was exceptionally small. Owing to the careful filtration to which the river water is now subjected, together with the improved means of storage at the command of the Companies, it being no longer necessary to impound the worst flood waters, and to the action of the conservators, the average quality of the water supplied has become better year by year, and more uniform throughout the year. The river Lea water was better last year than that drawn from the Thames. Of Thames derived waters, the Chelsea Company supplied the best, the West Middlesex Company the worst, a strange reversal of former experiences. Deep-well waters undergo such a prolonged, exhaustive, and inimitable natural filtration through great thicknesses of porous strata, as to render it extremely unlikely that any suspended organic matter known to be prejudicial to health, should have escaped removal. Hence these waters are "uniformly pure and wholesome."

The following table exhibits the proportional amounts of organic elements, (organic carbon and organic nitrogen), in the waters of the Companies which supply Kensington, the Kent Company's water being used as the standard of purity for comparison :—

Name of Company.	Maximum.	Minimum.	Average.
Kent .. .. .	1.5	0.9	1.1
Chelsea .. .. .	4.7	2.0	3.1
Grand Junction.. ..	5.3	2.4	3.4
West Middlesex .. ..	5.7	2.0	3.7

Dr. Frankland states that the water drawn from the Thames was of better average quality than in any previous year, excepting 1870, since his analyses were first made in 1875. But he adds that with the proportion of organic matter at its minimum, there is no certainty that the water does not contain the germs of zymotic disease, there being no guarantee against such morbid matters gaining access to the river, and there being nothing in the subsequent treatment to which the river water is subjected by the Companies that will ensure the removal of matters of this description. He is informed that, on this account, several of the Companies themselves are now impressed with the necessity of ultimately abandoning the rivers Thames and Lea as sources of water supply, and some of them have already completed works for utilizing subterranean waters which have undergone natural filtration through great thicknesses of gravel and

sand, whilst others are sinking deep-wells in the chalk. Unfortunately the protection which is provided by the common law to rivers is at present denied to subterranean waters, which may be polluted to any extent without remedy. Such sources of pure water should be carefully protected by law.

A marked and undeniable advantage of spring water is its evenness of temperature. The range of temperature of river waters is considerable, and last year in the water of the Thames, as delivered by five of the Companies, it amounted to 34°·0 Fahr., viz., from 37°·6 in March to 71°·6 in July. The deep-well water sent out by the Kent Company varied in temperature from 38°·1 in March to 59°·9 in June (range 21°·8). The deep-well waters remain of an agreeable coolness in summer when the river waters become warm and unpalatable.

The transparency or otherwise of water is ascertained by its appearance in a tube two feet in length, and is expressed in arbitrary terms settled by common agreement, as in the following table, which shows the degree of efficiency of filtration of Thames water as supplied by the Companies in this parish, and a great improvement over former years, the examinations being made monthly :—

Name of Company	NUMBER OF OCCASIONS.			
	When clear and transparent.	When slightly turbid.	When turbid.	When very turbid.
Chelsea .. ..	11	1	0	0
West Middlesex ..	11	1	0	0
Grand Junction ..	9	3	0	0

The deep-well waters were clear and transparent on every occasion save one.

When examined under the microscope the sediment deposited by turbid water, on standing, is generally found to contain living and moving organisms. The occurrence of such organisms is now much rarer than formerly. The annexed table shows the results of such microscopic examinations during the past fourteen years :—

Name of Company.	Number of occasions when living organisms were found.														
-	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
Chelsea .....	3	2	2	3	2	5	4	4	1	0	2	0	0	0	1
West Middlesex	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0
Grand Junction	4	1	1	2	3	5	7	3	3	3	1	3	3	0	1

The subjoined table shows the annual averages of each determination, and thus summarises the average results of the analysis of the waters supplied by the local Companies during the year; the Kent Company's water being taken as a standard for comparison. The numbers in this table relate to 100,000 parts of the waters, but may be converted into grains per imperial gallon by multiplying them by 7 and then moving the decimal point one place to the left.



NAME OF COMPANY.	Temperature in Centigrade Degrees.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates and Nitrites.	Total combined Nitrogen.	Chlorine.	Total Hardness.	Proportional amount of organic Elements, that in the Kent Company's Water during the 9 years ending Dec., 1876, being taken as 1.
Chelsea .....	11.9	27.12	.156	.030	.000	193	.223	1.5	19.1	3.1
West Middlesex .....	12.7	27.76	.184	.033	.000	.206	.238	1.5	19.7	3.7
Grand Junction .....	12.2	28.07	.164	.034	.000	.199	.233	1.5	19.9	3.4
Kent .....	12.1	41.71	.050	.015	.000	470	.484	2.6	28.0	1.1

THE WATER EXAMINER'S REPORT.—I turn now to the Annual Report of Colonel Sir Francis Bolton, R.E., which contains much information of general interest relating to the water supply.

Sir Francis Bolton, it should be mentioned, makes monthly inspections of the Metropolitan waterworks, filter beds, reservoirs, &c. : he examines the quality of the water, both at the intakes and after filtration at the works, and he reports monthly the results of such inspections and gives all other necessary information and particulars respecting each of the water companies. One of the most important of his duties is to ascertain whether or not the requirements of Section 4 of the Act of 1852 are complied with, viz., that “every Company shall effectually filter all water supplied by them within the metropolis before the same shall pass into the pipes for distribution.” The effectual filtration of river water depends, he says, upon—

1. A sufficient area of properly constructed filter beds, constantly clean, and fresh sanded from time to time as the original thickness is reduced.
2. The rate of filtration being controlled and limited to a certain speed.
3. The water delivered into the filter beds having been previously stored in subsiding reservoirs, and the capacity of these reservoirs being such as to avoid the necessity for the intake of turbid and muddy water during the time of extraordinary and heavy floods, which tend to foul and choke the filters.

The rate of filtration should not exceed 540 gallons per square yard of filter bed each 24 hours, or  $2\frac{1}{2}$  gallons per

square foot per hour, which, for all practical purposes, may be considered as a standard. The average rate of filtration per square foot of filtering area per hour of the local companies is West Middlesex,  $1\frac{1}{2}$ , Grand Junction and Chelsea,  $1\frac{3}{4}$ : the requirements of the Act in this respect, therefore, are fully carried out.

The filter beds are formed as follows :—

*West Middlesex.* Harwich sand, 2ft. 3in. ; Barnes sand 1ft. ; gravel screened to different sizes, and arranged in layers 2ft. 3in. Total thickness  $5\frac{1}{2}$ ft.

*Grand Junction.* Harwich sand, 2ft. 6in. ; Hoggins, 6in. ; fine gravel, 9in. coarse gravel, 9in. ; boulders, 1ft. Total thickness,  $5\frac{1}{2}$ ft.

*Chelsea.* Thames sand, 3ft. 3in. ; shells, &c., 3in. ; gravel, 4ft. 6in. Total thickness, 8ft.

It avails little, however, that the water is well filtered if it is allowed, as it so frequently happens, to deteriorate in the cisterns of the consumers through the uncleanly condition of those receptacles, and the connection of them with the drains through the medium of “waste-pipes,” which the Companies only have the power to abolish under the provisions of the fourteenth water regulation.\* The remedy no doubt is a “constant supply;” but as we shall have to wait for this, I would again urge that the Companies should be compelled to exercise their powers, or that the Vestries and District Boards should have co-ordinate authority with the Companies to enforce the regulations. Meanwhile, the attention of house-holders cannot be too frequently drawn to the necessity of such abolition of waste-pipes, and of periodical cleansing of the cisterns for storing potable water, which, moreover, should be properly covered to exclude light and dirt, and so situated that the water may be kept cool in summer without being in danger of freezing in winter. The stop valve should be fixed outside the premises to prevent

---

\* *Vide*, Regulation 14, page, 131.

damage to the house in case of pipes burst by frost or other causes. When constant supply is given a screw down draw-off tap should be affixed on to the rising main, or service pipe, so that drinking and cooking water may be drawn therefrom without the intervention of cisterns, which are required for washing, flushing, baths and similar purposes.

The quantity of water supplied daily, 290, 195, and 298 gallons per house, by the Grand Junction, West Middlesex, and Chelsea Companies respectively, was super-abundant, and indicates great waste, amounting as it does, in the three districts respectively, to 32·22, 26·11, and 38·01 gallons per head of the population. The “intake” of the Chelsea Company is at West Molesey; of the others, at Hampton Court. The Grand Junction supply is supplemented from gravel beds at Hampton, the company having a complete system of underground collection of water on about 20 acres of land, and being able during times of flood to raise 12 million gallons of water per day that has passed through the natural beds of granite and sand which are characteristic of the neighbourhood. The state of the water in the Thames during the months of January, February, and parts of March, October, November, and December, was generally bad; and the water that had to be taken in by the Companies was much polluted, and very difficult to filter. The solid impurities in suspension, chiefly consisting of clay, marl, and chalk in a very finely divided state, can be got rid of only by long subsidence previous to filtration. The storage reservoirs appear to be adequate for the purpose.

The following particulars, are derived from Sir Francis Bolton’s report, in respect of the local Companies:—

*Storage and Filtration.*—No new works have been found necessary by the Companies the existing means being sufficient to meet all requirements at all times of the year.

*Constant Supply.*—I have no means of ascertaining to what extent the constant supply has been extended to houses in this parish; but the following facts relating to the subject in the districts of the Companies in which we are interested may be acceptable. The West Middlesex Company are

giving constant supply to all new estates and buildings, and where new services are laid down constant supply is made compulsory by the Company; 2,860 houses were put on constant supply during the year and in May 1884, the number of houses on constant supply was 15,702 out of a total of 63,370.

The Grand Junction Company in May 1884 were giving constant supply to 30,612 houses, out of a total of 48,130: the increase during the year 1883 was 8,158, and the system has been extended to North Kensington and new estates at Notting Hill. The reservoirs at Kew Bridge and Campden Hill have been connected with the main of the East London Company in order to insure a supply of water from the works of that company at Sunbury, in case of accident or emergency.

The Chelsea Company in May 1884, were giving constant supply to 3,807 houses (increase during the past year, 664), out of a total of 32,587, and are fully prepared to extend the system as required; but judging from the few applications made for such supply, there appears to be no desire in the public authorities, or private individuals, in this, or either of the other districts. for the constant service: all new estates, and new lines of streets are being so supplied. By way of contrast, and to show how backward the Western Companies are in this matter of constant supply, as compared with the Companies in the East of London, where the Companies have taken the initiative, it may be mentioned that the East London Waterworks Company now give constant supply to 117,493, out of a total of 142,605 houses supplied by them, and containing an estimated population of 1,069,537 persons. Considerable advance was made during the past year in London as a whole in extending the constant supply; 237,826 of the total number of 664,440 houses supplied, being now on constant service.

The number of miles of streets containing mains constantly charged, and on which hydrants for fire extinguishing purposes could at once be fixed, in the districts of the local Companies are, West Middlesex, 91; Grand Junction, 62; and Chelsea, 70. The Companies are ready to affix hydrants on the mains whenever required to do so. In the Metropolis there are now fixed 6,555 hydrants, the total length of mains being 916 miles: the increase, in mains, during 1882 being  $87\frac{1}{2}$  miles, and in number of hydrants, 392.

**DETERIORATION OF WATER IN DIRTY CISTERNS.**—The Local Government Board sometime ago addressed a circular letter to Nuisance Authorities in the Metropolis, stating that the Water Examiner had drawn their attention to the serious deterioration which water frequently undergoes, after delivery, by being kept in impure cisterns, and enclosing an

extract from one of his reports of the examination of the water supplied by the Companies. Sir Francis Bolton's observations were directed (1) to the deterioration of the water by the dirty and uncovered condition of the cisterns; (2) to the need for frequent cleansing of cisterns; and (3) to the misplacing of the cistern, where there is but one, and that one situated over a water closet, and having communication with the drains by means of the waste pipe.

The importance of the subject is undeniable; and your Vestry's Sanitary Inspectors have standing instructions to inspect the cisterns of every house visited, *where practicable*. It is the fact, however, that cisterns are often so placed as to be inaccessible to inspection or for cleansing: often there is but one cistern, and it is commonly placed immediately over a water-closet, as stated by Sir Francis Bolton. With respect to the improper placing of a cistern we have no power to interfere, but the Water Companies might, if so minded, do something to remedy the evil complained of, under the 13th Regulation, which provides that: "Every cistern . . . shall be . . . properly covered and placed in such a position that it may be inspected and cleansed."

I need hardly remind your Vestry that the subject of water supply has constantly engaged my attention; or that the matters referred to in the Water Examiner's above mentioned report have always formed the subject of comment in my Annual Reports. I was glad therefore that the subject had attracted the attention of the Local Government Board, and I ventured to suggest the desirability of a reply being sent to the Board's communication, directed to calling their attention to the necessity of such an alteration in the law as would give Nuisance Authorities co-ordinate power with the companies to enforce the regulations, and so give effect to the views of the Water Examiner. This was done but without effect.

**ABOLITION OF WASTE-PIPES.**—In the Memorandum by

the Medical Officer of the Local Government Board, on the subject of Precautions against Cholera, previously adverted to at page 45 it was advised that "any connexions of waste-pipes of cisterns with drains should be severed." As this advice was entirely in agreement with the views of your Vestry, advantage was taken of the opportunity it afforded to draw attention, once again, to the imperfections of the law and of the water regulations, which do not allow of Sanitary Authorities carrying out the recommendations of the Board's Medical Officer. Communications were forthwith addressed to the Board, to the Vestries and District Boards, and to the local Waterworks Companies. The Board was informed that your Vestry was sensible of the value of the advice given, and fully concurred with the Water Examiner, that if Regulation 14 were "carried out in its integrity," it would "prevent contamination of the water from the gases generated by sewage." Request, therefore, was made that the Board should take steps to secure the severance of all connexions of waste-pipes with drains by urging the Companies to put Regulation 14 into immediate and general operation by serving the required notice on consumers.\* Should the Companies refuse or neglect, the Board was asked to consider as to the desirability of bringing in a Bill to confer on Sanitary Authorities power to enforce the regulation.

The Sanitary Authorities were requested to support your Vestry's action in the matter by addressing a similar communication to the Board and by recommending the several Water Companies to put the regulation in force, and thereby bring about a much needed and important sanitary improvement.

---

\* Regulation 14. "No overflow or waste-pipe other than a 'warning-pipe' shall be attached to any cistern supplied with water by the Company, and every such overflow or waste-pipe existing at the time when these Regulations come into operation shall be removed, or at the option of the consumer shall be converted into an efficient 'warning-pipe,' within two calendar months next after the Company shall have given to the occupier of, or left at the premises in which such cistern is situate a notice in writing requiring such alteration to be made.

The Water Companies were reminded that the most effectual plan for giving effect to the advice of the Board was by their serving notice on the consumers to cut-off waste-pipes in conformity with the provisions of Regulation 14; and, "having regard to the danger of a polluted water supply, especially at a time when the introduction of Cholera was possible, and to the probability that should Cholera spread in the Metropolis it will be, as on a former occasion, through the water supply, "the great importance of taking steps without loss of time to carry the said regulations into effect," was pressed upon the attention of the several Companies.

I may here mention, by way of parenthesis, that I endeavoured, some years ago, to stimulate the local Companies to exercise their power to abolish waste-pipes. I was given to understand that the Chelsea Company—at the time they were short of water, prior to the construction of their new works at West Molesey—had taken steps to abolish waste-pipes, with a view to economise consumption, but I failed to get the West Middlesex and Grand Junction Companies to move in the matter. The views expressed by the Secretaries were to the effect that the Companies, being trading bodies, did not care to offend their customers: the regulation was intended to prevent waste of water, simply, and as they had plenty of water they didn't care about the waste. I failed also in the attempt to convince the Secretaries that the Commissioners, in framing regulation 14, must have had in view the removal of a dangerous nuisance. It may be added that under the regulations for the construction of drainage to new houses, which have been enforced for some time past in this parish, waste-pipes are not allowed to have direct communication with the drains. But to resume.

The Local Government Board subsequently addressed a communication to the Water Companies on the subject, and these in turn prepared circular notices, (in varying terms), which were left at every house in the districts of the several

Companies, and in which attention was drawn to the excellent advice upon the subject of cleansing and covering of cisterns, and cutting-off waste-pipes, which from time to time, the Water Examiner embodies in his reports. In every circular the 14th Regulation was quoted in its entirety. It is impossible to say how much or how little good may have been effected as a result of the trouble the Companies took in the matter it; is impossible, moreover, not to regret that the Companies did not go one step further and issue the required "notice" upon every householder, to cut off all connexions of waste-pipes of cisterns with drains, as they had been urged to do, and thus effect an important sanitary reform. It is very much to their interest to do so, as I believe many of the complaints of bad water which arise from time to time are due to the dangerous connections of waste-pipes with drains, and that if these were abolished the Companies' water would be in greater repute.

Waste pipes, we are told will be abolished when constant supply is given, but for this, large portions, in fact the bulk, of the parish will still have to wait a long time, as the Companies appear to be unwilling to move in the matter any faster than the necessities of the constant system require. Meanwhile, Sir Francis Bolton continues to reiterate monthly his sound advice to householders—and there is now some prospect of it reaching them, as it has been arranged that an abstract from his reports shall be printed on the back of the Companies' collectors rate-papers, and the collectors will be instructed by the Companies to "report immediately any bad cases they may discover, (but how should they discover any?), in order that the assistance of the Sanitary Authorities may be drawn thereto." Sir Francis Bolton points out that if the conditions contained in the Regulations were observed by consumers and by local, (*i.e.* nuisance or sanitary), authorities, as well as by the Water Companies, many of the evils complained of would be prevented. Doubtless compliance with the regula-



tion should be enforced on consumers, but I have not been able to ascertain that the Local Authority has the power which, by implication, Sir Francis Bolton appears to credit them with ; and as for the Companies, we are likely enough still to have occasion to complain, as in former years, that, as a rule, they do not, and will not, systematically enforce the regulations, excepting for their own trading purposes. Nothing short of an epidemic of cholera will suffice to bring about universal compliance with the advice of the Water Examiner, viz., by the exercise of the powers possessed by the Water Companies under Regulation 14.

### G A S .

The subjoined tables, based on the quarterly reports of the Chief Gas Examiner, summarise the principal results (averages), of the daily testings, at the Ladbroke Grove Station, of the "common gas," manufactured at Kensal Green by the Gas Light and Coke Company.

1. *With respect to illuminating power.* The maximum, minimum, and average illuminating power in standard sperm candles was as follows, (statutory standard, sixteen candles):—

	Maximum.	Minimum.	Average.
Quarter ended March 31st	17·5	16·6	17·0
Quarter ended June 30th...	17·7	16·5	17·1
Quarter ended September 30th	17·5	16·7	17·0
Quarter ended December 31st	17·6	16·6	17·0
Averages, whole year	17·6	16·6	17·0

The minimum did not on any occasion fall below the Parliamentary Standard, and the average was considerably above the standard.

2. *With respect to purity.* Sulphuretted hydrogen was not present in the gas at any time, and the proportion of sulphur in any other form was always considerably below the limit fixed by the Acts of Parliament.

Grains of sulphur per 100 cubic feet of gas. Permitted maximum—17 grains in 100 cubic feet, between April and October, and 22 grains between October and April.

	Maximum.	Minimum.	Average.
Quarter ended March 31st...	10·9	6·3	8·2
Quarter ended June 30th.....	9·7	6·2	8·1
Quarter ended September 30th	11·7	7·9	8·1
Quarter ended December 31st	10·0	6·0	6·4
<hr/>			
Averages, whole year	10·6	6·4	7·9
Do. 1882	14·7	7·7	10·6

With regard to Ammonia, a valuable residual product of gas manufacture, the limit allowed by the Acts of Parliament, (4 grains in 100 cubic feet of gas), was not reached on any occasion.

The Chief Gas Examiner is quite independent of the Company; it is satisfactory, therefore, to note that his reports of the testings are so favorable. No complaint was received from any private consumer in respect of the illuminating power of the gas, and I understand that Mr. Philip Monson, your Vestry's Superintendent of Street Lighting, is satisfied with the quality of the gas as supplied to the public lamps. The burners now in use are calculated to consume gas at the rate of 4·5 cubic feet per hour, whereas the burners formerly in use, originally provided when Cannel gas was employed, consumed only 3 feet per hour; but notwithstanding the increased consumption of gas, (50 per cent.), and the consequent improvement in the lighting of the public thoroughfares, the cost is not greater than under the old system of a fixed annual payment per lamp. Great complaints, however, are made by private consumers, who allege, and justly, I believe, that however much the price of gas may go down, (the shareholders profits going up *pari passu*), the actual annual payment for gas increases. The reason, doubtless, is that proper apparatus for controlling the consumption of gas is not applied either at the meter or in connexion with the individual

burners. And as it is, unquestionably, to the pecuniary interest of the Company, to supply the gas at an excessive, rather than at a low or medium pressure, for then more gas passes through the meter and has to be paid for, as gas consumed, to say nothing of the cost of cleansing dirty ceilings, I would again beg to recommend that systematic records of *pressure*, at all hours of the day and night, and at several points of the Company's district within the parish, be obtained. It would be well, moreover, that Mr. Monson should prepare, and your Vestry circulate, directions to consumers, as to the best way of limiting the consumption of gas and of burning it to the greatest advantage. I might say a good deal on this subject but it is not in my department, and as in Mr. Monson your Vestry has an officer, both able and willing to advise consumers to their advantage, I venture to hope that his services may be enlisted in their behalf.

---

CONCLUSION.—It now only remains for me to discharge the pleasing duty of thanking those who have contributed by their assistance to whatever success may have attended the work of my Department in the past year.

Of the sympathetic co-operation of the Board of Guardians I have already spoken, and it would be impossible to overrate the importance of the assistance rendered by them, and their officers, in measures for preventing the spread of infectious diseases.

The sub-district Registrars, Messrs. Barnes and Hume, and the Vaccination Officer, Mr. Shattock, have, as usual, very willingly complied with all my requests for information.

The members of the Sanitary Staff have discharged their numerous duties with zeal, intelligence, and success.

My thanks are justly due to your Vestry for a continuance of the confidence and support which I have never failed to receive, and which have enabled me to carry out with satis-

faction the duties appertaining to my office, and to superintend the working of a Department the importance of which is every year more fully recognised by the general public.

I am, Gentlemen,

Your obedient Servant,

T. ORME DUDFIELD, M.D.,

*Medical Officer of Health.*

TOWN HALL, KENSINGTON,  
*July, 1884.*



**TABLE I.**

Shewing the Population, Inhabited Houses, Marriages, Births, and Deaths for the Year 1883, and 10 years preceding.

The Year.	Estimated Population*	No. of Inhabited Houses. †	Marriages.	Registered Births.	DEATHS.			
					Total all Ages.	Under One Year.	Under Five Years.	In Public Institutions.
1883.	168,000	21,030	1,616	4,230	2,615‡	601	982	483§
1882	165,450	20,908	1,474	4,327	2,691	635	1,114	403
1881	163,540	20,666	1,461	4,400	2,726	644	1,067	437
1880	161,462	20,700	1,483	4,605	2,884	719	1,219	369
1879	158,316	20,240	1,428	4,790	2,992	722	1,218	424
1878	154,805	19,719	1,331	4,607	3,120	823	1,429	410
1877	151,360	19,330	1,411	4,648	2,625	648	1,040	420
1876	148,338	18,944	1,417	4,499	2,896	771	1,305	338
1875	144,488	18,444	1,346	4,478	2,786	686	1,119	338
1874	138,616	17,667	1,311	4,356	2,696	762	1,188	352
1873	132,826	16,915	1,243	4,182	2,439	656	979	272
Average of 10 yrs. 1873-1882.	151,870	19,035	1,390	4,489	2,785	706	1,167	376

Population at Census 1861, 70,108; 1871, 120,234; 1881, 163,151.

Average Number of Persons in each house at Census in 1871, 7·6; in 1881, 8·1.

Area of Parish 2,190 acres. Number of Persons to an acre (1883) 76·6.

\* For statistical purposes the population is estimated to the middle of the year, on the basis of the rate of increase ruling between the two preceding Census periods, checked by the known number of inhabited houses, and by the average number of persons per house, as ascertained at the preceding Census.

† Mean of number on rate books in April and October yearly.

‡ Inclusive of deaths of parishioners at public institutions outside the parish, and exclusive of the deaths of non-parishioners at public institutions within the parish.

§ Viz.: at the Parish Infirmary and at outlying public institutions, including the Asylum Board's hospitals.

TABLE II.

Shewing the Annual Birth Rate and Death Rate; Death Rates of Children, and Proportion of Deaths in Public Institutions in a Thousand Deaths, for the year 1888 and 10 years preceding.

The Year	Birth Rate per 1000 of the Population.	Death Rate per 1000 of the Population.	Deaths of Children under 1 year : per 1000 of Registered Births.	Deaths of Children under 1 year : per 1000 of Total Deaths.	Deaths of Children under 5 years : per 1000 of Total Deaths.	Deaths in Public Institutions : per 1000 of Total Deaths.
<b>1883</b>	<b>25·2</b>	<b>15·5</b>	<b>143</b>	<b>229</b>	<b>375</b>	<b>184*</b>
1882	26·1	16·2	146	236	413	149
1881	26·9	16·6	146	236	391	160
1880	28·5	17·8	156	249	422	128
1879	30·2	18·8	150	241	407	133
1878	29·8	20·2	178	263	458	132
1877	30·7	17·3	132	246	396	135
1876	30·3	19·5	171	266	450	117
1875	30·9	19·2	153	246	401	121
1874	31·4	19·4	174	282	440	131
1873	31·4	18·3	156	270	402	116
Average of 10 years 1873-1882.	29·6	18·3	156	253	418	132

\* Includes deaths of Parishioners at outlying Public Institutions, but excludes deaths of non-parishioners at Brompton Consumption Hospital and Marylebone Infirmary, Notting Hill. In the years 1873-82 the deaths at Brompton Consumption Hospital are included as compensation for the unknown number of deaths of Parishioners at outlying Public Institutions.





TABLE II.

Showing the Annual Birth Rate and Death Rate: Death Rates of Children, and Proportion of Deaths in

TABLE III.

Deaths Registered from all causes in the year 1883.

(Exclusive of the Deaths of Non-Parishioners at Public Institutions within the Parish, but inclusive of the deaths of Parishioners at Public Institutions outside the Parish.)

CAUSES OF DEATH.	AGES.										Total under Five Years of Age.	Grand Total all Ages.	SUB-DISTRICTS.	
	0 to 1.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards.		Kensington Town.	Brompton.
I. SPECIFIC FEBRILE or ZYMOTIC DISEASES (CLASSES).	112	103	25	17	23	13	10	7	5	2	3	320	270	50
II. PARASITIC DISEASES .....	5	1	..	..	..	..	..	..	..	..	..	6	4	2
III. DIETIC DISEASES .....	8	..	..	..	..	..	..	..	..	..	..	18	12	6
IV. CONSTITUTIONAL DISEASES .....	61	68	33	47	86	89	9	77	33	18	1	602	484	118
V. DEVELOPMENTAL DISEASES .....	80	..	..	..	..	..	..	1	17	40	22	161	124	37
VI. LOCAL DISEASES .....	225	190	38	34	66	90	135	188	194	140	21	1321	1065	256
VII. DEATHS FROM VIOLENCE.....	18	3	4	3	4	5	8	4	2	..	..	51	38	13
VIII. DEATHS FROM ILL DEFINED AND NOT SPECIFIED CAUSES.....	93	15	2	1	4	3	7	4	2	3	2	136	118	18
I. SPECIFIC FEBRILE or ZYMOTIC DISEASES	602	380	103	102	184	204	254	281	253	203	49	2615	2115	500



**TABLE II.**

Shewing the Annual Birth Rate and Death Rate; Death Rates of Children, and Proportion of Deaths in Public Institutions in a Thousand Deaths, for the year 1888 and 10 years preceding.

The Year	Birth Rate per 1000 of the Population.	Death Rate per 1000 of the Population.	Deaths of Children under 1 year : per 1000 of Registered Births.	Deaths of Children under 1 year : per 1000 of Total Deaths.	Deaths of Children under 5 years : per 1000 of Total Deaths.	Deaths in Public Institutions : per 1000 of Total Deaths.
<b>1883</b>	<b>25.2</b>	<b>15.5</b>	<b>143</b>	<b>229</b>	<b>375</b>	<b>184*</b>
1882	26.1	16.2	146	236	413	149
1881	26.9	16.6	146	236	391	160
1880	28.5	17.8	156	249	422	128
1879	30.2	18.8	150	241	407	133
1878	29.8	20.2	178	263	458	132
1877	30.7	17.3	132	246	396	135
1876	30.3	19.5	171	266	450	117
1875	30.9	19.2	153	246	401	121
1874	31.4	19.4	174	282	440	131
1873	31.4	18.3	156	270	402	116
Average of 10 years 1873-1882.	29.6	18.3	156	253	418	132

\* Includes deaths of Parishioners at outlying Public Institutions, but excludes deaths of non-parishioners at Brompton Consumption Hospital and Marylebone Infirmary, Notting Hill. In the years 1873-82 the deaths at Brompton Consumption Hospital are included as compensation for an unknown number of deaths of Parishioners at outlying Public Institutions.



**TABLE II.**

---

CHAMBERSBURG. Annual Death Rate and Death Rates of Children, and Proportion of Deaths in

**TABLE IV.**

Shewing the Number of Deaths at all ages in 1883, from certain groups of Diseases, and proportions to 1000 of Population, and to 1000 deaths from all causes; also the number of deaths of Infants under one year of age from other groups of Diseases, and proportions to 1000 Births and to 1000 Deaths from all causes under one year.

Division I. (Adults).	Total Deaths.	Deaths per 1000 of Population at all ages.	Deaths per 1000 of Total Deaths, at all ages.
1. Principal Zymotic Diseases ..	251	1 5	96
2. Pulmonary Diseases	590	3·5	225
3. Principal Tubercular Diseases ..	360	2·1	133
Division II. (Infants under One Year).	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of Total Deaths under One Year.
4. Wasting Diseases..	158	37	262
5. Convulsive Diseases	83	22	138

**NOTES.**

1. Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping-cough, Typhus Fever, Enteric (or Typhoid) Fever, Simple Continued Fever and Diarrhoea. Twenty of the deaths occurred in Hospitals outside the Parish.
3. Includes Phthisis, Scrofula, Tuberculosis, Rickets, and Tabes.
4. Includes Marasmus, Atrophy, Debility, Want of Breast Milk, and Premature Birth.
5. Includes Hydrocephalus, Infantile Meningitis, Convulsions, and Teething. (In Table III Hydrocephalus and Infantile Meningitis are classified with tubercular diseases, Convulsions with diseases of the nervous system, and Teething with diseases of the digestive system.)

TABLE V.

Shewing the Number of Deaths from the principal Zymotic Diseases, in the 10 years, 1873 to 1882, and in the year 1883.

DISEASES.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Annual average of 10 years, 1873-1882.	Proportion of Deaths to 1000 Deaths in 10 years, 1873-1882.	1883.	Proportion of Deaths to 1000 Deaths in 1883.
Small-pox .....	1	0	0	8	84	24	24	11	55	..	20.7	7.4	1	.3
Measles .....	38	121	23	128	54	53	60	75	67	77	69.6	25.0	39	15.0
Scarlet Fever .....	10	32	83	59	31	77	51	105	38	62	54.8	19.6	28	10.7
Diphtheria .....	11	26	23	17	10	20	26	22	8	25	18.8	6.7	24	9.1
Whooping Cough .....	44	45	107	124	34	185	93	95	85	119	93.1	33.4	44	16.9
Typhus (Fever. Enteric Simple Continued Diarrhoea .....	6	9	2	3	2	3	1	4	2	1	3.3	.1	2	.7
	27	28	21	27	20	26	14	24	22	25	23.4	8.4	30	11.5
	8	15	6	6	5	4	8	5	5	6	6.8	2.4	3	1.1
Diarrhoea .....	145	112	107	126	99	181	71	128	101	61	113.1	40.6	80	30.6
Kensington .....	290	388	372	498	339	573	348	469	383	376	403.6	143.6	251	95.9
Totals. { London .....	11385	11230	13411	12565	12292	14734	12256	13681	13811	13553	12891	160	10801	134
	70402	88200	82382	75506	66558	84624	62020	82537	58239	69734	74015	142	58972	112

# Inspectors' Report of the Sanitary Work completed in the year 1883-4.

Sanitary Districts.*	No. of Complaints received during the year.	No. of Houses, Premises, &c. inspected.	No. of Re-inspections of Houses, Premises, &c.	Results of Inspection.			House Drains.		Water-Closets.			Dust Bins.		Water Supply.			Miscellaneous.							
				Orders issued for Sanitary Amendments of Houses and Premises.	Houses, Premises, &c., Cleansed, Repaired, Whitewashed, &c.	Houses Disinfected after illness of an Infectious Character.	Repaired, Cleansed, Trapped, &c.	Ventilated.	Repaired, &c.	Supplied with Water.	New provided.	New provided.	Repaired, Covered, &c.	Cisterns (new) erected.	Cisterns Cleansed, Repaired, and Covered.	Waste-pipes connected with Drains, &c. abolished.	No. of Lodging Houses registered under 35th Section of the "Sanitary Act, 1866,"†	Dust Removal—No. of Communications received and attended to. §	Removal of Accumulations of Dung, Stagnant Water, Animal and other Refuse.	Animals Removed, being improperly kept.	Bakehouses	Licensed Cowsheds.	Licensed Slaughter-houses.	Legal Proceedings : i.e., Summonses. ‡
N.W.	47	1279	1079	502	149	42	104	25	49	100	6	41	2	13	61	32	..	393	120	39	37	8	11	62
N.E.	70	1345	1269	416	183	73	184	9	234	169	8	10	30	9	62	19	..	531	90	2	46	1	5	20
Centrl.	60	1299	1774	354	266	44	53	191	22	62	3	47	75	8	47	96	..	406	21	15	24	2	7	3
South	112	2024	1668	454	630	40	133	111	100	79	3	4	87	4	151	61	..	508	114	1	39	4	2	25
Totals	289	5247	5793	1726	1298	199	474	336	405	410	20	102	194	34	321	208	..	1838	345	57	146	15	25	110.

the North-East and North-West Districts are north of the centre of Uxbridge Road ; to the East and West of Ladbroke Grove, and Ladbroke Grove Road respectively :

\* The North-East and North-West Districts are north of the centre of Uxbridge Road; to the East and West of Ladbroke Grove, and Ladbroke Grove Road respectively; the Central and South Districts are south of Uxbridge Road.

† This Act has not yet been put into operation.

‡ The actual complaints of neglect made by letter were 58.

§ Exclusive of proceedings, in 9 cases, under the Food and Drugs Adulteration Act, the Inspector for the North-West District being the Inspector under the Act, and in 10 32 cases of "obstructions, &c.," on and over the public ways.



**TABLE VIa.**

Summary of Monthly Returns of Work, &c., done by the Sanitary Inspectors, 1888-4.

Date of Report.	Houses Inspected.				Mews Inspected.				Slaughter Houses Inspected.				Cowsheds Inspected.				Bakehouses Inspected.				Offensive Trades Inspected.				Sanitary Notices Issued.				Removal of Dust, Ashes, &c., Letters of Request received and attended to.				Date of Report.
	District.				District.				District.				District.				District.				District.				District.				District.				
	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.					
Ap.21,1883	82	134	128	171	103	254	78	207	2	4	6	8	7	2	3	16	7	15	15	9	12	7	15	3	50	31	19	30	55	82	18	66	Ap.21,1883
May 19 "	115	101	136	180	105	255	88	202	7	6	6	8	4	5	6	18	2	29	14	8	7	20	16	7	24	42	24	41	51	59	39	39	May 19 "
June 16 "	135	121	78	182	102	248	52	196	9	4	6	8	10	4	2	17	18	15	13	7	23	29	13	5	39	49	38	45	77	62	37	79	June 16 "
July 14 "	100	88	147	99	288	..	212	11	14	..	7	8	2	..	16	6	31	..	3	38	11	..	9	35	60	..	66	57	54	69	69	July 14 "	
Aug. 11 "	108	125	18	61	101	283	14	100	15	7	2	2	12	3	2	6	12	12	11	1	30	8	14	6	49	26	4	15	35	51	31	68	Aug. 11 "
Sept. 8 "	142	8	108	154	120	56	67	228	9	7	8	6	5	2	2	13	16	..	11	4	10	2	13	10	35	14	68	39	41	42	57	32	Sept. 8 "
Oct. 6 "	25	86	153	146	25	324	61	167	9	13	7	8	6	2	2	14	4	31	6	4	4	30	11	3	14	25	63	33	6	29	24	16	Oct. 6 "
Nov. 3 "	78	102	135	121	86	248	59	175	7	6	8	9	6	2	4	9	13	1	8	6	22	5	16	6	62	32	36	30	3	16	24	25	Nov. 3 "
Dec. 1 "	68	128	125	200	63	254	72	163	2	3	4	9	8	1	1	13	4	32	11	7	12	28	12	5	44	27	9	44	15	16	19	19	Dec. 1 "
Dec. 29 "	73	77	53	130	119	253	52	197	2	9	10	7	1	1	5	15	12	14	16	8	17	10	19	4	23	21	6	16	10	25	9	25	Dec. 29 "
Jan.26,1884	127	114	158	178	134	254	50	201	12	6	8	9	12	1	5	14	21	23	10	1	24	25	17	2	42	30	46	32	20	46	23	22	Jan.26,1884
Feb. 23 "	125	116	149	178	120	251	80	207	10	8	7	9	3	1	2	15	5	20	2	1	14	14	2	2	37	20	15	24	10	12	40	15	Feb. 23 "
Mar. 22 "	101	145	68	176	126	252	46	194	7	4	6	8	5	1	3	12	15	26	7	4	18	25	6	3	47	39	26	39	14	37	15	33	Mar. 22 "
Totals ..	1279	1345	1309	2024	1303	3220	749	2449	102	91	78	98	87	27	37	178	135	249	124	63	231	214	154	65	502	416	354	454	394	531	405	508	Totals.

**TABLE VII.**

Showing the Death rate per 1000 persons living: the annual rate per 1000 from the "seven" principal Diseases of the Zymotic class; and the proportion of Deaths from these Diseases to total Deaths in Kensington and all London, in 1883, and in ten years preceding.

The Year.	Deaths per 1000 living.		Total Deaths from seven Zymotic diseases, Kensington.	Annual rate of Mortality per 1000 living from seven Zymotic Diseases.		Proportion of Deaths to 1000 Deaths from seven Zymotic Diseases.		The Year.
	Kensington.	London.		Kensington.	London.	Kensington.	London.	
1873	18.8	22.5	290	2.1	3.3	118	149	1873
1874	19.4	22.5	388	2.8	3.3	144	147	1874
1875	19.2	23.7	372	2.5	3.9	133	164	1875
1876	19.5	22.3	498	3.3	3.6	171	162	1876
1877	17.3	21.9	339	2.2	3.5	129	160	1877
1878	20.2	23.5	573	3.7	4.1	183	175	1878
1879	18.8	23.3	348	2.2	3.3	116	143	1879
1880	17.8	22.2	469	2.9	3.7	162	170	1880
1881	16.6	21.2	383	2.3	3.6	140	172	1881
1882	16.2	21.4	376	2.2	3.5	140	163	1882
AVERAGES OF TEN YEARS.	18.3	22.4	403	2.6	3.5	143	160	AVERAGES OF TEN YEARS.
<b>1883</b>	<b>15.5</b>	<b>20.4</b>	<b>251</b>	<b>1.5</b>	<b>2.7</b>	<b>96</b>	<b>134</b>	<b>1883</b>

TABLE VIII.

Comparative Analysis of the Mortality in all London and in Kensington in 1883.

LOCALITY.	Annual Death Rate per 1000 living from all causes.	Annual Death Rate per 1000 living from seven principal Zymotic diseases.	Percentage of Deaths under 1 year to Births Registered.	PERCENTAGE OF DEATHS TO TOTAL DEATHS.					
				Under 1 year of age.	At 60 years of age and upwards.	From seven principal Zymotic diseases.	From Violence.	Registered upon information of the Coroner. (Inquests.)	Registered at Public Institutions.
London .. ..	20·4	2·7	14·5	24·1	21·6	13·4	3·7	7·2	20·6
Kensington ..	15·5	1·5	14·3	22·9	25·5	95·9	1·5	5·5	18·4*

\* Viz.:—At the Parish Infirmary and at outlying institutions. Inclusive of the deaths of non-parishioners at the Brompton Consumption Hospital and the Marylebone Infirmary, the percentage would be 40·0, or 33·7 if the deaths of parishioners at outlying institutions were excluded.

\_\_\_\_\_







**TABLE X.**  
**PARISH OF ST. MARY ABBOTTS, KENSINGTON**

Return respecting the Vaccination of Children whose Births were Registered in 1888.

DATE.	Registration Sub-Districts comprised in Vaccination Officer's District.	Number of Births returned in Birth List Sheets.	Number of these Births duly entered in Columns 10, 11 and 13 of the Vaccination Register (Birth List Sheets), viz. :				Number of these Births which are not entered in the Vaccination Register, on account (as shewn by Report Book) of			
			Column 10 Successfully vaccinated.	Column 11. Insusceptible of vaccination.		Column 13 Dead. Un-vaccinated.	Postponement by Medical Certificate.	Removal to District where the Vaccination Officer has been duly apprised.	Removal to places unknown, or which cannot be reached, and cases not having been found otherwise.	Cases still under proceedings by summons and otherwise.
1883	1	2	3	4	5	6	8	9	10	
1st January } to 30th June }	Kensington Town	1779	1558	5	..	136	7	8	65	..
	Brompton	462	398	3	..	38	..	2	21	..
1st July } to 31st Dec. }	Kensington Town	1586	1330	4	..	152	30	2	68	..
	Brompton	402	339	..	..	31	11	..	18	3
	<b>TOTAL</b>	<b>4229</b>	<b>3625</b>	<b>12</b>	<b>..</b>	<b>357</b>	<b>48</b>	<b>12</b>	<b>172</b>	<b>3</b>



**TABLE XI.****LICENSED SLAUGHTER-HOUSES.****SOUTH OF UXBRIDGE ROAD.**

LOCALITY.	LICENSEE.
1, Church Street, Kensington	Mr. Blott
11, Peel Place, Silver Street-	„ Osborn
The Mall, Silver Street- -	„ Wright
183, Brompton Road - -	Mrs. French
60, Kensington High Street -	Mr. Evans
15, High Street, Notting Hill	„ Short
183, ditto ditto	„ Candy
6, Addison Terrace, ditto	„ Beall
85, Earl's Court Road - -	„ Matson

**NORTH OF UXBRIDGE ROAD.**

18, Archer Mews - - -	Mr. Bawcombe
195, Clarendon road - -	„ Rea
10, Edenham Mews - -	„ Goddard
2, Ledbury Mews - -	„ French
Lonsdale Mews - - -	„ Green
50, Princes Road - - -	„ Parratt
10, Princes Mews - - -	„ Short
10, Princes Yard - - -	„ Coles
Clarendon Mews - - -	„ Colley
41, Princes Place - - -	„ Grant
23, Norfolk Terrace - -	„ Harris
61, Silchester Road - -	„ Crawforth
235, Walmer Road - - -	„ Van
Royal Crescent Mews - -	„ Brooker
Ditto ditto - - -	„ Down

**TABLE XII.****LICENSED COWSHEDS.****SOUTH OF UXBRIDGE ROAD.**

LOCALITY.	LICENSEE.
5, St. Mark's Road, Fulham Rd.	Mr. Cotching
Newland terrace (rear of) -	„ Tisdall
Stratford Road - - -	„ Clarke
Addison Cottage, Lorne Gds.	„ Glenie
Newcombe Street - - -	„ Lunn
Earl's Court Road (rear of 117)	„ Thorne

**NORTH OF UXBRIDGE ROAD.**

1, Ledbury Mews - - -	Mr. Liddiard
187, Walmer Road - -	„ Arnsby
235, Walmer Road - -	„ Van
47, Tobin Street, Notting Dale	„ Skingle, Jun.
12, Blechynden Mews - -	„ Burton
14, Ditto ditto - - -	„ Copperwheat
23, Bramley Road - -	„ Tame
27, Queen's Road, Norlands -	„ Williams
Elm Cottage, St. Mark's Road	„ Bowyer



# THE ANNUAL REPORT

ON

## THE HEALTH, SANITARY CONDITION,

&c., &c.,

OF THE

Parish of St. Mary Abbots,

KENSINGTON,

FOR THE YEAR

1884,

BY

T. ORME DUDFIELD, M.D.,

*(President of the Society of Medical Officers of Health),*

*Medical Officer of Health.*

---

PRINTED BY HUTCHINGS AND CROWSLEY, LIMITED.

123, FULHAM ROAD, SOUTH KENSINGTON, S.W.;

AND HENRY STREET, ST. JOHN'S WOOD, N.W.

---

1885.

TABLE VIII.

Comparative Analysis of the Mortality in all London and in Kensington in 1888.

LOCALITY.	Annual Death Rate per 1000 living from all causes.	Annual Death Rate per 1000 living from seven principal Zymotic diseases.	Percentage of Deaths under 1 year to Births Registered.	PERCENTAGE OF DEATHS TO TOTAL DEATHS.					
				Under 1 year of age.	At 60 years of age and upwards.	From seven principal Zymotic diseases.	From Violence.	Registered upon information of the Coroner. (Inquests.)	Registered at Public Institutions.
London .. ..	20·4	2·7	14·5	24·1	21·6	13·4	3·7	7·2	20·6
Kensington ..	15·5	1·5	14·3	22·9	25·5	95·9	1·5	5·5	18·4*

\* Viz.:—At the Parish Infirmary and at outlying institutions. Inclusive of the deaths of non-parishioners at the Brompton Consumption Hospital and the Marylebone Infirmary, the percentage would be 40·0, or 33·7 if the deaths of parishioners at outlying institutions were excluded.



CHOLERA—*continued.*

PAGE

„	Conference with respect to, between the Asylums Board and the Medical Officers of Health ... ..	27
„	Outbreak of in Spain, in June, 1885 ... ..	27
„	Precautions adopted against, in 1883, by the Local Government Board, regarded as indications of probable action in 1885 ... ..	28
„	Diseases Prevention (Metropolis) Act, 1883, Arrangements made by the Asylums Board under the ... ..	28
„	Duties of the “Local Authorities” (Vestries, &c.), under Diseases Prevention Act, 1855, &c... ..	29
„	Action of the Vestry in 1883 with reference to ... ..	30
SMALL-POX IN KENSINGTON, 1884 ... ..		30
„	Outbreak of, in May ... ..	33
„	Illustrations of Modes of Spread of ... ..	34, 35, 38
WESTERN (late FULHAM) HOSPITAL, Work of the year at ... ..		39
SMALL-POX, EPIDEMIC OF, IN LONDON, 1884 ... ..		43
„	Tables (A & B), shewing number of Patients remaining under treatment and number of acute cases admitted at each of the Hospitals, fortnightly ... ..	44, 45
„	THE EASTERN HOSPITAL : Table C, page 46, and ... ..	55
„	THE SOUTH-WESTERN HOSPITAL : Table D, page 47, and ... ..	55
„	THE SOUTH-EASTERN HOSPITAL : Table E, page 48, and ... ..	56
„	THE NORTH-WESTERN HOSPITAL : Table F, page 49, and ... ..	56
„	THE WESTERN HOSPITAL : Table G, page 50, and ... ..	56
„	THE PLAISTOW HOSPITAL : Table H, page 51, and ... ..	57
„	HOSPITALS : Admissions at all the : Being a summary of Tables C to H inclusive ... ..	52
„	THE HOSPITAL SHIPS : Tables J and K, pages 53-54, and ... ..	57
„	THE DARENTH CAMP ... ..	57
„	in the East and North Districts (EASTERN HOSPITAL) ... ..	57
„	Course of the Epidemic, March—December ... ..	58
HOSPITALS FOR INFECTIOUS DISEASES, THE USE AND INFLUENCE OF ... ..		61
„	Discussion by Society of Medical Officers of Health on Small-Pox Hospitals ... ..	62
„	Facts with regard to the Epidemic, in Kensington, in the District of the Western Hospital ... ..	64

HOSPITALS FOR INFECTIOUS DISEASES, &c.— <i>continued.</i>	PAGE
„ The Notable Outbursts of January, 1881, and June, 1884, in the district of the Western Hospital, compared	66
„ Facts with regard to the Epidemic in the East and North Districts (Eastern Hospital) ... ..	69
„ Cases of Small-pox Removed Direct to the Ships from their own homes in June, with good effects following	71
„ <i>Post hoc</i> or <i>propter hoc</i> ? ... ..	72
„ Small-pox in the Fourth Quarter of the year: Table L page 75, and ... ..	73
„ Views of Medical Officers of Health on the subject ...	74
„ Freedom from Small-pox of Public Institutions near Hospitals ... ..	76
„ Alleged infectiveness of Convalescent period of Small-pox	77
„ Probable spread of Small-pox by personal communication	78
 HOSPITALS COMMISSION, Action of Asylums Board to give effect to	
the recommendations of the ... ..	78
„ Small-pox Hospital Accommodation ... ..	78
„ Ship and Camp Hospitals... ..	79
„ The Darenth Camp Action (Fleet <i>v.</i> the Managers) ...	79
„ Permanent Hospital to be erected at Darenth ... ..	81
„ Additional Accommodation required ... ..	82
„ Fever Hospital Accommodation ... ..	83
„ New Hospital in course of erection at Winchmore Hill	83
„ Ambulance Service... ..	84
„ Ambulance Station: Western (at Fulham) ... ..	84
„ Ambulance Steamers ... ..	85
„ Removal of Patients ... ..	85
„ Wharves or Landing Places, “North,” “South,” “West” provided ... ..	86
 NOTIFICATION OF INFECTIOUS DISEASES ... ..	87
„ Views of Sir Charles Dilke ... ..	88
„ „ of Medical Officer to the Local Government Board (foot note) ... ..	89
„ Provided for in Regulations for Houses Let in Lodgings	90
„ Voluntary: Existing sources of ... ..	92
„ „ The beneficial results of ... ..	94
 INCREASED FACILITIES FOR THE REMOVAL OF THE INFECTIOUS SICK	97
„ Action of the Kensington Guardians ... ..	97
„ Views of the Conference of 1881... ..	98
„ „ The Hospitals Commission ... ..	98



INCREASED FACILITIES, &c.— <i>continued.</i>		PAGE
„	Action of the Asylums Board ... ..	99
„	The Poor Law Act, 1879 ... ..	101
„	Proposal to contract under Act for reception of “non-Paupers” ... ..	102
„	Views of the Vestry ... ..	104
„	„ Society of Medical Officers of Health ...	106
„	The Asylums Board's proposed contract terms... ..	107
„	My “Circular Letter” to Local Medical Men, and to Medical Officers of Health (July 22)... ..	108
„	Correspondence with Asylums Board arising out of the issue of the “Circular Letter,” Abstract of... ..	109

INTERRUPTION OF EDUCATION at Elementary Schools, resulting from prevalence of Infectious Diseases ... ..	117
--	-----

---

POPULATION of Sub-Districts, Number of Inhabited Houses, &c. ...	119
„ Relative Numbers of Males and Females : at different ages, in parish, and in sub-districts ... ..	120
RATEABLE VALUE &c. : Increase of, in 28 years and in 13 years ...	121
MARRIAGES AND MARRIAGE RATE ... ..	122
BIRTHS AND BIRTH-RATE ... ..	122
DEATHS AND DEATH-RATE, in Parish and in sub-districts ... ..	123
INFANTILE MORTALITY ... ..	124
SENILE MORTALITY ... ..	125
DEATH RATE AT DIFFERENT AGES ... ..	125
DEATH RATE, Monthly : Monthly mean Temperature, &c. ... ..	126
DEATH, Summary of causes of (Table) ... ..	126
DEATH, ASSIGNED CAUSES OF ... ..	127
„ Zymotic Diseases ... ..	128
„ Parasitic „ ... ..	129
„ Dietetic „ ... ..	129
„ Constitutional „ ... ..	130
„ „ „ (Tubercular) ... ..	131
„ Developmental „ ... ..	133
„ Local „ ... ..	133
„ Violent Deaths ... ..	136
„ Ill-defined and Not Specified Causes ... ..	136
PUBLIC INSTITUTIONS, DEATHS IN ... ..	137
„ Parish Infirmary and Workhouse ... ..	137
„ Outlying Public Institutions ... ..	139
„ St. Joseph's House ... ..	139

<b>PUBLIC INSTITUTIONS, &amp;c.—continued.</b>	<b>PAGE</b>
„ Consumption Hospital, Brompton ... ..	140
„ Marylebone Infirmary, Notting Hill ... ..	140
<b>DEATHS “Not Certified” ... ..</b>	<b>140</b>
<b>INQUESTS ... ..</b>	<b>141</b>
„ Deaths from Violence ... ..	142
„ Why so many become necessary? ... ..	143
<b>METEOROLOGY ... ..</b>	<b>144</b>
<b>VACCINATION in 1884 ... ..</b>	<b>144</b>
„ Officer's Report ... ..	144
„ Increased facilities for ... ..	145
„ Proposal to make the Sanitary Authority the Vaccination Authority ... ..	145
„ Evidence furnished by Medical Officer to Local Government Board, as to the Protection afforded by Animal; Calf Lymph ... ..	146
„ Animal; Calf Lymph ... ..	149
<b>SANITARY WORK OF THE YEAR ... ..</b>	<b>149</b>
<b>NUISANCES REMOVAL ACTS: Committee appointed to carry out the</b>	<b>149</b>
„ Magisterial action with reference to the ... ..	150
„ Digest of and Digests of other Sanitary Acts prepared by Local Government Board and issued with “Circular Letter” to Sanitary Authorities ... ..	150
„ The Work of the Sanitary Inspectors under the ... ..	151
„ Summary of Justices' Orders made under the ... ..	152
„ An illustration of the Inefficiency of the, in case of litigious obstruction ... ..	152
<b>WATER SUPPLY. The cutting-off powers of the Companies ... ..</b>	<b>153</b>
„ „ The Hayden's Mews Case... ..	154
„ Inconsistent Legislation, with reference to ... ..	155
„ The Medical Officer's Views, with reference to ... ..	157
„ Bill introduced by Lord Camperdown to Regulate the powers of the Companies ... ..	158
<b>OFFENSIVE BUSINESSES ... ..</b>	<b>158</b>
„ Brick-burning, Nuisance arising from ... ..	158
„ „ Successful Proceedings ( <i>Dunston v. Neal</i> and Attorney-General <i>v. Ellt</i> ) to restrain Nuisance arising from ... ..	159
„ Metropolitan Board of Works, requested to Schedule Marine Stores under Slaughter Houses Act ... ..	163

<b>OFFENSIVE BUSINESSES—continued.</b>	<b>PAGE</b>
„ The Views of the Board on the subject ... ..	163
„ A Judicial Decision ( <i>Passey v. Oxford Local Board</i> ) ...	165
„ Tallow Melter (Tucker's Factory) ... ..	165
„ Fat Extractors ... ..	165
<b>PRIVATE MEWS, Powers of Vestry to require the owners to pave</b> and drain the surface of ... ..	165
<b>SLAUGHTER HOUSES, The Licensed</b> ... ..	167
<b>COWSHEDS, The Licensed</b> ... ..	168
<b>DAIRIES, COWSHEDS, AND MILK SHOPS ORDER, 1879</b> ... ..	168
<b>PUBLIC HEALTH (DAIRIES, &amp;C.) BILL</b> ... ..	169
<b>BAKEHOUSES...</b> ... ..	170
<b>HOUSES LET IN LODGINGS : The Law relating to</b> ... ..	174
„ Proceedings of the Vestry with reference to (1878— 1885) ... ..	175
„ Regulations for, made by Vestry ... ..	177
„ Form of Notice to Landlords ... ..	182
„ Instructions to Sanitary Inspectors ... ..	183
 <b>HOUSING OF THE WORKING CLASSES</b> ... ..	184
„ Report of the Royal Commission, Notes on the ... ..	184
„ The Sanitary Authorities charged with remissness for not having put existing laws into force ... ..	190
„ Are the Authorities as much to blame as represented ? ...	191
„ Failure in Administration shewn to be the necessary result of defects in legislation ... ..	191
„ The Difficulties of the Sanitary Authorities ... ..	193
„ The Law's Delays ... ..	194
„ The Poor will have to pay for their own Improved Dwellings ... ..	195
„ Amendments of Law recommended ... ..	196
„ Bill introduced by the Prime Minister for giving effect to Recommendations of the Commissioners... ..	197
„ Summary of the Bill ... ..	197
„ The Prime Minister's views as to cause of failure of well-intentioned legislation ... ..	199
„ Consolidation of Sanitary Laws : Bill to provide for has been prepared ... ..	200
<b>UNHEALTHY HOUSES : Successful Actions to recover Damages</b> against Owners for letting ... ..	200
<b>REFUSE, Removal of : Recommendations by the Society of Medical</b> Officers of Health with reference to... ..	201
„ <b>HOUSE, Removal of : Dustbins should be abolished</b> ...	202
„ <b>STABLE : Difficulty of obtaining Periodical Removal of</b>	204

	PAGE
NECESSARY ACCOMMODATION, Public Urinals, &c. ... ..	205
PUBLIC BATHS AND WASHHOUSES, A Site obtained for ... ..	205
MORTUARY, PUBLIC, Remarks with regard to the ... ..	206
MORTUARY KEEPER'S RESIDENCE ... ..	207
CORONER'S COURT ... ..	207
DISINFECTION ... ..	208
<hr/>	
WATER SUPPLY, Abstract of Report on, by Professor Frankland ...	209
"                    "                    Sir Francis Bolton (Water Examiner)	213
"            Deterioration of, in Dirty Cisterns ... ..	217
WASTE-PIPES of Cisterns, The Medical Officer of the Local Govern- ment Board recommends Abolition of ... ..	218
"            Communications addressed by the Vestry to the Local Government Board, to the Vestries and to the Water- works Companies, with reference to... ..	219
GAS, Results of examinations for ascertaining the illuminating power and purity of the ... ..	222
"            Supply of, for street lighting ... ..	224
"            Excessive pressure complained of; a proper subject for enquiry ... ..	224
CONCLUSION ... ..	224

## APPENDIX.

### STATISTICAL AND OTHER TABLES.

TABLE 1. Estimated Population in 1884 and ten previous years 1874-83; Number of Inhabited Houses, of Marriages, Births, Deaths, &c. ... ..	229
" 2. Birth Rate and Death Rate; Death rates of Children; Deaths in Public Institutions, 1884 and 1874-83... ..	230
" 3. Deaths Registered from all Causes in 1884 ... ..	231
" 4. Deaths from Seven Principal Zymotic Diseases; Pul- monary Diseases; Tubercular Diseases; Wasting Diseases of Infants; Convulsive Diseases of Infants: Gross and Proportional Numbers ... ..	233
" 5. Deaths in 1884, and in 1874-83 from the Seven Principal Zymotic Diseases: in the Parish, in the Metropolis, and in England and Wales ... ..	234
" 6. Summary of Inspectors' Reports of the Sanitary Work completed in the year 1884-5 ... ..	235

STATISTICAL AND OTHER TABLES—*continued*.

PAGE

TABLE 6a. Summary of Monthly Returns of Work, done by the Sanitary Inspectors in the year 1884-5 ... ..	236
„ 7. Death Rates, General and Zymotic, Kensington and London, and Proportion of Deaths from Zymotic Diseases to total Deaths in 1884 and 10 previous years ... ..	237
„ 8. Comparative Analysis of the Mortality in London and Kensington in 1884 ; Percentages of deaths under one to births registered, and percentages of deaths under one, at 60 and upwards, from the principal Zymotic Diseases, from violence, of inquest cases, and of deaths at public institutions, to total deaths ... ..	238
„ 9. List of streets where fatal cases of the more important of the Zymotic Diseases occurred in 1884 ... ..	239
„ 10. Vaccination Officer's Annual Return ... ..	241
„ 11. Slaughterhouses, Licensed ; and Names of Licensees ... ..	242
„ 12. Cowsheds „ „ ... ..	243

TWENTY-NINTH ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH,  
BEING FOR THE YEAR 1884.

---

*To the Vestry of the Parish of St. Mary Abbots, Kensington.*

GENTLEMEN,

In the following report the vital statistics have been compiled for the registration year ended January 3rd, 1885, a period of 53 weeks, and the sanitary statistics for the parochial year ended March 25, 1885.

The vital statistics are calculated upon an estimated population of 170,000, a number arrived at on data furnished by the census of 1881, corrected by the known number of inhabited houses.

The year 1884, like 1883, was a singularly healthy one; the deaths registered were 2,638 only, and 428 below the corrected decennial average. In this total there are included 178 deaths which took place at outlying public institutions, *i.e.*, special and general hospitals, &c. The deaths of non-parishioners at public institutions within the parish, 150 in number, are excluded.

The deaths registered corresponded to a rate of 15·1 per 1,000 for a year of ordinary length—the lowest rate on record. This rate was 2·9 below the decennial average (18·0), 5·2 below the rate for London as a whole (20·3), and 4·5 below the rate in England and Wales (19·6).

The London death-rate was 1·9 below the decennial average, and was the lowest on record. The rate in England and Wales, 19·6, 1·0 below the decennial average, was the lowest, with two exceptions, recorded in any year since civil registration was established in 1837.

The subjoined table shows the annual death-rate, per 1,000 persons living, for each of the last eleven years, in Kensington, and, for the sake of comparison, in the Metropolis and its several districts, and in all England :—

Death Rate.	1874.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	1875.	1874.
Kensington ...	15·1	15·5	16·2	16·6	17·8	18·8	20·2	17·3	19·5	19·2	19·4
London ...	20·3	20·4	21·4	21·2	21·7	22·6	23·1	21·5	21·9	23·5	22·4
W. Districts ...	19·2	19·5	19·9	19·6	19·8	20·9	21·6	19·2	20·9	22·2	20·9
North „ ...	19·1	19·1	19·7	20·6	20·8	21·5	22·0	21·5	22·1	22·1	21·7
Central „ ...	23·8	23·2	23·9	23·2	23·4	26·0	25·1	24·2	24·1	26·2	25·6
East „ ...	23·0	24·1	25·3	24·2	24·3	25·5	25·0	24·5	23·9	25·7	25·5
South „ ...	19·8	19·4	20·7	20·5	21·3	21·8	23·0	20·5	21·2	23·3	21·0
England and Wales }	19·6	19·5	19·6	18·9	20·5	20·7	21·6	20·3	20·9	22·7	22·2

Referring to the low rate of mortality in London, the Registrar-General states in his Annual Summary that “ had the deaths in 1884 equalled the average yearly number in the preceding decennium, 1874-83, corrected for increase of population, 6,182 persons would have died in the year, who, as it was, were alive at its close.”

The death-rate in the “ Outer Ring ” of London Suburban Districts, with a population slightly exceeding a million persons, was 17·5. The rate in 27 great towns (exclusive of London), having an aggregate population of over 4½ millions persons was 22·2, ranging from 18·0 at Brighton, to 27·3 at Preston. In 50 other large urban districts, with an estimated population of 2,784,000 persons, the aggregate rate was 20·3, the same as the London rate, ranging from 12·5 at Barrow-in-Furness (population 57,000), to 26·1 at Wigan (population 51,600).

Having premised so much by way of introduction it will be well, before proceeding further, to say a few words with respect to the

#### REGISTRATION DISTRICT AND SUB-DISTRICTS

in which we are locally interested.

“KENSINGTON” is the title of a Superintendent Registrar’s District, No. 1 in the Registrar-General’s list, which comprises the parishes of Kensington and Paddington. The subjoined table shows the relative areas of the two parishes, and other particulars relating to the Census years 1871 and 1881.

	Area in Statute Acres.	Inhabited houses. 1871.	1881.	Increase in 10 years.	Population. 1871.	1881.	Increase in 10 years.
Kensington	2,190	15,735	20,103*	4,368	120,299	163,151	42,852
Paddington	1,251	11,847	13,187	1,340	96,813	107,098	10,285

REGISTRATION SUB-DISTRICTS.—For registration purposes Kensington parish is unequally divided into two “sub-districts,” viz., “Kensington Town,” hereinafter for brevity designated “Town,” and “Brompton.” The area of the Town sub-district, according to the Registrar-General, is 1,497 acres, that of Brompton, being 693 acres; total, whole parish, 2,190 acres: in your Vestry’s Annual Report the total area is given as 2,245 acres. The population of the town sub-district at the middle of 1884 was about 125,400, and that of Brompton 44,600; total, whole parish, 170,000. The Town sub-district still includes some open spaces, e.g., Holland Park, and fields at Notting Barn Farm; the latter, however, are now being built over. The Brompton sub-district, in which the builder has been active of late years, many of the new houses being of a palatial character, is now nearly covered. The West London or Brompton Cemetery is in this sub-district, and the Kensal Green Cemetery is in the Town sub-district: both these cemeteries, it is to be regretted, are still in active use.

The sub-districts present considerable differences which should be borne in mind in any comparison of their vital statistics. In Brompton the rich and well-to-do form a large proportion of the population, whilst in the Town sub-district there is a considerable and an increasing percentage of persons of the poorer classes. The poor in Kensington, however, possess one advantage over the poor in some other parts of the Metropolis, in that for the most part they live in well-built houses obviously intended for occupation

---

\* The number 20,103 is taken from the Census return. The rate books show 20,705 occupied and rated premises, many of which, presumably, do not afford living or sleeping accommodation, and therefore would not be enumerated at the Census.



by the lower middle class, miles of streets of such houses being now inhabited by a class of persons who, in the more ancient parts of the Metropolis, find shelter in dwellings that by way of comparison might be described as squalid.

THE PARISH OF KENSINGTON is for some local purposes divided into "Wards:" the subjoined table shows the acreage of the wards, their population, and the number of inhabited houses, etc., in 1871 and 1881.

Name of Ward.	Area in Statute Acres.	Inhabited houses.			Population		
		1871.	1881.	in 10 years.	1871.	1881.	in 10 years.
St. Mary Abbotts	846	4,781	6,573	1,792	35,696	48,604	12,908
Holy Trinity	439	3,224	3,936	712	22,128	26,746	4,618
Brompton							
St. John, Notting Hill & St. James Norland	905	7,730	9,594	1,864	62,475	87,574	25,099

The rateable annual value of property in the several wards, in 1871, was as follows:—St. Mary Abbotts, £323,992; Holy Trinity, £246,716; St. John and St. James, £365,012. Total, whole parish, £935,720. In 1881 the returns for the first and second wards, which cannot now be given separately, show a rateable value of £1,078,512 (increase, £507,804); for St. John and St. James, £501,704 (increase, £136,692). Total, whole parish, £1,580,216 (increase, £644,496).

The subjoined figures will be found interesting as marking the development of the parish in population and wealth, since the beginning of the century.

The Year.	Population.	Rateable value of Property.	The Year.
1801	8,556	£75,916	1823
1821	14,428	93,397	1833
1841	26,834	142,772	1843
1851	44,053	257,103	1853
1861	70,108	444,030	1863
1871	120,299	975,046	1873
1881	163,151	1,580,216	1881
1884 (July)	170,000	1,769,563	(April) 1885

#### SUMMARY OF VITAL STATISTICS, 1884.

The first fact to be noted is that, as already mentioned, the Kensington death rate in 1884 (15·1 per 1000), was lower than that of any previous year of which we possess the vital statistics.

And this lower death rate was due, not to exceptional causes operating at particular periods, but, (as in 1883 likewise, when I had to make the same satisfactory announcement), to a good average condition of the public health from the beginning to the end of the year; for in all but one of my ordinary reports, thirteen in number, each covering a period of four weeks, I had to record a death rate below the decennial average.

The mortality from the "principal diseases of the zymotic class," small-pox and enteric fever excepted, was, as we shall see, considerably below the average. Scarlet fever and measles were little prevalent, and whooping cough was less fatal than usual; but the mortality from diarrhoea, as a result of the high summer temperature, approached the corrected decennial average. In only one of the four-weekly periods, (June 15 to July 12), did the deaths from the principal diseases of the zymotic class exceed the corrected decennial average number.

The death rate in the first four weeks of the registration year (ended January 26) was 16·6 per 1000 persons living, or 4·4 below the decennial average; it was 3·7 below the Metropolitan rate (20·3), this, in turn, being 4·6 below the average. The deaths from the principal diseases of the zymotic class (including 6 from measles and 4 from enteric fever) were 20, or 10 below the corrected decennial average. The mean temperature of the air was 43°·3 Fahr. or 4°·3 above the means in the corresponding weeks in the previous ten years.

In the second period (5th-8th weeks—January 27 to February 23), the death rate, 16·1, was 4·1 below the average; the Metropolitan rate, 20·0, was 5·8 below the average, but 3·9 above the rate in Kensington. In this month the deaths from the principal diseases of the zymotic class (including 6 each from measles and whooping cough, 5 from scarlet fever and 3 from enteric fever) were 26, or 4 below the average. The mean temperature was 40°·0 and 0·1 above the average.

In the third period (9th-12th weeks—February 24 to March 22) the death rate, 17·6, was the highest recorded in 1884, but it was 2·2 below the decennial average and 3·1 below the Metro-

politan rate (20·7), which in turn was 3·3 below the average. The deaths from the principal diseases of the zymotic class (including 9 from whooping cough) were 15, or 13 below the average. Mean temperature 44°·0; average of ten years 42°·1.

In the fourth period (13th-16th weeks—March 23 to April 19) the death rate, 14·7, was 5·9 below the average, and 6·0 below the Metropolitan rate (20·7), which, again, was 3·5 below the average. The deaths from the principal diseases of the zymotic class (including 7 from whooping cough), were 13, being 16 below the average. Mean temperature 45°·2, or 0·2 below the decennial average.

In the fifth period (17th-20th weeks—April 20 to May 17) the death rate fell to 14·3, being 2·8 below the average, and 6·7 below the Metropolitan rate (21·0), which, again, was 0·2 below the average. The deaths from the principal diseases of the zymotic class were 21, or 2 below the average. Five cases of small-pox were recorded in this period, four of them in North Kensington, *i.e.*, to the North of the Uxbridge Road. The mean temperature was 49°·5; average of ten years 49°·1.

In the sixth period (21st-24th weeks—May 18 to June 14) there was a slight rise in the death rate to 15·5, but the rate was 1·2 below the average, and 3·3 below the Metropolitan rate (18·8), this in turn being 0·6 below the decennial average. The deaths from the principal diseases of the zymotic class (including 9 from whooping-cough and 4 from enteric fever) were 23, being 9 below the average. In this period small-pox reappeared in the parish in a fatal form, two deaths having been registered; 38 cases of the disease were recorded, of which 28 occurred in South Kensington, *i.e.*, to the South of the Uxbridge Road. The Western (Fulham) Hospital was reopened to small-pox cases on May 17. The mean temperature during the four weeks was 54°·9, or 1°·5 below the average.

In the seventh period (25th-28th weeks—June 15 to July 12) the death rate further rose to 15·8, and was above the decennial average (to the extent of 0·3 only) for the first and only time in

1884. The Kensington rate was 5·2 below the Metropolitan rate (21·0), this being 1·3 above the average. The deaths from the principal diseases of the zymotic class (including 6 each from small-pox and measles, 3 from diphtheria and 4 from enteric fever, 11 from whooping cough, and 16 from diarrhoea), were 48, and were above the average (to the number of 10), for the first and only time in 1884. Fifty-two cases of small-pox were recorded, 30 and 22 in North and South Kensington respectively. The mean temperature, 63°·0, was 1°·8 above the decennial average, and, as usual with so high a temperature, there was a considerable increase in the fatal cases of diarrhoea, which rose from 2 in the previous period to 16, the same as the corrected decennial average. The deaths from diseases of the respiratory organs, which had been 51, 31 and 38 in the three preceding periods, were only 25 in the four weeks. Somewhat numerous sudden deaths from heart disease and syncope were probably due to the depressing and exhausting effects of the hot weather.

In the eighth period (29th-32nd weeks—July 13 to August 9) the deaths from diarrhoea further rose to 39, in addition to 6 from “choleraic diarrhoea,” the mean temperature having advanced slightly, viz., to 63°·2, or 1°·1 above the decennial average. The death rate, moreover, rose to 16·0, but it was 1·3 below the decennial rate, and 8·0 below the Metropolitan rate, (24·0), which, however, was 1·7 above the average. The deaths from the principal diseases of the zymotic class (55), which in the preceding period had been 11 above the average, were in this period 2 below the average, notwithstanding the extensive prevalence of infantile diarrhoea. The high temperature, so fatal in its consequences to young children (98 of whom under the age of one year died within the four weeks), was favorable to the aged, leading as it did to a considerable reduction in the number of deaths (there were 18 only) from diseases of the respiratory organs. Thirty-four persons only died at 60 and upwards in this month. There were 2 deaths from small-pox, but the recorded cases fell from 52 in the previous period to 7, 5 of them in North Kensington.

In the ninth period (33rd-36th weeks—August 10 to September 6) the mortality from diarrhoea (29 deaths) continued high, but the general death rate declined to 14·3, being 0·2 below the decennial average, and 6·1 below the Metropolitan rate (20·4), this being 0·9 above the average. The deaths from the principal diseases of the zymotic class (33), were 4 below the average. The remarkably small number of 8 deaths only were registered from the diseases of the respiratory organs. There was no death from small-pox, and only 2 cases of the disease were recorded (in North Kensington). The mean temperature, 62°·8, was 2°·1 above the average of ten years.

In the tenth period (37th-40th weeks—September 7 to October 4), the death rate fell to the lowest point touched in 1884, viz., 12·3 per 1000; it was 1·6 below the decennial average, and 4·7 below the Metropolitan rate, (17·0), this being 1·5 below the average. The deaths from the principal diseases of the zymotic class (10), were 13 below the average. There were 6 deaths only from diarrhoea, although the mean temperature was high, 58°·8, and 3°·8 above the average. There was no death from small-pox, but 5 cases (3 of them in North Kensington) were recorded. Small-pox began to increase again at this time in the Metropolis as a whole. On Saturday, September 20, the cases in hospital were 471 (having decreased in 11 weeks from 1,368); on Saturday, September 27, the number had risen to 536, and 129 cases had been admitted during the week ending on that day.

In the eleventh period (41st-44th weeks—October 5 to November 1) the death rate was again 12·3; it was 3·7 below the decennial average, and 6·6 below the Metropolitan rate (18·9), which, in turn, was 1·8 below the average. The deaths from the principal diseases of the zymotic class were 19, or 6 below the average. There were 5 deaths from enteric fever and 2 each from scarlet fever and diphtheria. There were also 4 deaths from small-pox; 8 cases of the disease were recorded (5 of them in North Kensington). The deaths from diarrhoea further declined to 2. The mean temperature, 48°·5, was 0°·1 below the average.

In the twelfth period (45th-48th weeks—November 2-29) the death rate rose to 17·2, but it was 1·5 below the decennial average, and 3·1 below the Metropolitan rate (20·3), this, in turn, being 2·8 below the average. The deaths from the principal diseases of the zymotic class were 9 only, and 16 below the decennial average. But the nearer approach to the end of the year was marked, as usual, by an increasing mortality from diseases of the respiratory organs; the total deaths from these causes, which had been 8, 17, and 32, in the three preceding periods, rose to 64, including bronchitis, 40. Seventeen cases of small-pox were recorded (11 of them in North Kensington) but no death. The cases in the Asylum Board's Hospitals—580 on November 1—had risen to 884 on November 29. The mean temperature during the four weeks was 42°·4 and 2°·0 above the average.

In the thirteenth and last period (embracing five weeks—November 30 to January 3, 1885) the death rate fell again to 14·9, and was 4·9 below the average. It was 6·8 below the Metropolitan rate (21·7), which, in turn, was 3·3 below the decennial rate. The deaths from the principal diseases of the zymotic class were 22, or 15 below the decennial average. There were no fewer than 12 deaths from small-pox; 35 cases of this disease were recorded, including 29 in South Kensington. There were 3 deaths each from diphtheria and enteric fever. The deaths from diseases of the respiratory organs further rose to 78, including bronchitis, 55. The mean temperature had declined to 40°·0, but was 1°·8 above the decennial average.

## THE ZYMOTIC DISEASES.

Before entering into details with respect to population, births, deaths, etc., I propose to consider the sickness and mortality from the principal diseases of the Zymotic class, and subjects naturally arising out of this topic.

The "class" of diseases called *Zymotic* comprises in the Registrar-General's classification of the "causes of death" six "Orders." The first and second Orders, ("Miasmatic" and "Diarrhoeal"), include the diseases which the Registrar-General calls "the seven principal diseases of the zymotic class," still grouping as he does under the generic term "Fever" the three distinct fevers, "Typhus," "Enteric," and "Simple Continued." These diseases have a high interest for sanitarians, arising out of the fact that they are admittedly of a more or less preventible character; it being customary, moreover, to regard the absence or the prevalence of some of them as a test of the sanitary condition of a district. But, without under-rating the importance of this test, there are limitations to its applicability which must be borne in mind if we would draw sound conclusions. What I mean may be best explained by an illustration or two founded on our own local experiences within the last few years. Thus *Measles* was very fatal in 1874 and 1876; the deaths were far above the average; it was the zymotic disease that gave a special character to those years. In 1875 and 1877, on the other hand, the deaths from *Measles* were below the average; but the lower mortality, evidence of the diminished prevalence of the disease, was the result of the excessive prevalence and fatality of the malady in the preceding years. (*Vide* Table V., Appendix.) In saying this, I do not, of course, ignore the fact that one epidemic of a zymotic disease may be more severe than another; nor am I forgetful of the fact that the fatality of an epidemic disease may be influenced by the measures taken, or the neglect to take any measures, for limiting the spread of infection. Again, the rate of mortality in the Metropolis from *whooping cough* in 1881 was the lowest on record; it is not surprising to find, therefore, that in 1882 the disease was excessively fatal. In our own parish the large total of 185 deaths from this disease, in 1878, followed the minimum return of 34 in the previous year.

DIARRHŒA may be cited as an illustration of quite another kind. The mortality from this disease amongst infants was excessive in 1878; the mortality in 1879 was much below the average; but

the diminished mortality in 1879 had no relation to the excessive mortality in 1878; the conditions were altogether different. The summer of 1879 was cold and wet, and, as always happens in these circumstances, the mortality from infantile diarrhœa was low, just as it is always high when the summer is hot and dry, as it was in 1878. *Per contra*, it may be observed that the conditions that were so favourable to infantile life in respect of diarrhœa, in 1879, were very unfavourable to life, both in the young and in the aged, in respect of another group of diseases, the pulmonary, the mortality from which throughout the year was excessive, as it always is in cold and wet seasons.

Again, the significance of a high rate of prevalence of *enteric fever* differs widely according to circumstances: the disease may be constantly present in one district as the result of drainage defects, or of a polluted water supply; whilst in another district its introduction may be due to an accidental pollution of water, or to a specifically contaminated milk supply—and the same observation in regard to milk applies equally in the case of scarlet fever also.

These and like circumstances must be kept in view if we would draw right conclusions from a high or a low rate of prevalence of diseases, particularly in relation to the sanitary condition of a district.

Subject to corrections for local and climatic conditions, and for high rates in previous years, the concurrence of a low zymotic and of a low general death rate, furnishes just ground for satisfaction; and as the general rate and the zymotic rate were both low in Kensington in 1884, we are fairly entitled to the enjoyment of that satisfaction. It need hardly be said, on the other hand, that a persistently high rate of mortality from zymotic diseases furnishes matter for serious consideration. Kensington, as we shall see, in due course, has hitherto been in the happy position of having a death rate from these diseases much below that of the Metropolis generally.



The subjoined table\* sets out necessary particulars of the mortality from the principal zymotic diseases in 1884, together with the decennial average, etc.:—

Disease.	Sub.-Districts.		In Hospitals.		Decennial Average.		
	Town.	Brompton.	Town.	Brompton.	Total.	Uncorrected.	Corrected for Increase of Population.
Small Pox .....	3	3	14	6	26	20·7	22·6
Measles .....	23	9	—	—	32	69·7	76·3
Scarlet Fever...	10	1	5	2	18	56·6	61·9
Diphtheria ...	6	8	3	—	17	20·1	21·9
Whooping Cough	68	13	—	—	81	93·1	101·9
Typhus Fever	—	—	—	—	—	2·9	3·1
Enteric " ..	11	6	3	6	26	23·7	25·8
Simple Conth. "	4	—	—	—	4	6·3	6·8
Diarrhoea .....	93	17	—	—	110	106·6	116·9
	218	57	25	14	314	399·7	437·2

From the above table we learn that the deaths from the "seven principal diseases of the zymotic class" which were 63 more than in 1883, were 123 below the corrected decennial average. As usual, the deaths in the Brompton sub-district were relatively fewer, in proportion to population, than in the Town sub-district. The deaths were equal to 118 per 1,000 deaths from all causes in Kensington, (Metropolis, 164), and to a rate of 1·8 per 1,000 persons living, (Metropolis, 2·7); the decennial average being 2·5 in Kensington, and 3·5 in London. By way of comparison it may be mentioned that in England and Wales the deaths from these diseases were 135 in every 1,000 deaths; and the rate was 2·2 per 1,000 persons living, the decennial average being 3·0 per 1,000.

In the 27 large Towns grouped by the Registrar-General with the Metropolis, the zymotic death rate was 3·5 per 1,000, ranging from 1·7 in Brighton and Huddersfield, to 5·1 in Preston, while in the 50 large Towns coming next in order of importance after the 27, it averaged 2·8 per 1,000, the highest rate (6·5 per 1,000) being recorded at Wigan, and the lowest rate (1·1) at Southport.

---

\* The figures in the table do not tally with those in the Registrar-General's Annual Summary, because deaths of non-parishioners at public institutions within the parish are excluded, whilst deaths of parishioners in outlying public institutions are included.

The following table shows the distribution of deaths, from the several diseases, of Kensington people, as registered in 13 periods corresponding to my monthly reports :—

PERIOD.	DISEASES.								Total.
	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Simple Continued Fever.	
Four weeks ended									
Jan. 26 .....	...	6	2	2	4	...	4	...	20
Feb. 23 .....	...	6	5	1	6	...	3	1	26
Mar. 22 .....	...	1	1	...	9	...	1	...	15
April 19 .....	...	2	...	1	7	...	...	...	13
May 17 .....	...	5	2	1	10	...	1	...	21
June 14 .....	2	4	1	1	9	...	4	...	23
July 12 .....	6	6	2	3	11	...	4	...	48
Aug. 9 .....	2	1	2	...	10	...	...	1	55
Sept. 6 .....	...	...	...	1	3	...	1	...	33
Oct. 4 .....	...	1	...	...	3	...	...	...	10
Nov. 1 .....	4	...	2	2	2	...	5	2	19
Nov. 29 .....	...	...	1	2	4	...	...	...	9
Jan. 3, 1885.....	12	...	...	3	3	...	3	...	22
	26	32	18	17	81	...	26	4	314

I now proceed to make a few observations with regard to each of the above-mentioned diseases, leaving small-pox to the last.

**MEASLES.**—The deaths were 32, and less than half the corrected decennial average, 76 : all but 5 were recorded in the first half of the year, and 23 took place in the Town sub-district. The deaths from this cause were 39 in 1883, and 76 in 1882, the same as the decennial average. In the natural course of events, we may reasonably expect an enhanced mortality from measles in the course of the present year, or in 1886. In many of the fatal cases, some intercurrent disease, of the respiratory organs commonly, a complication of the original malady, was the immediate cause of death. Comparatively little care is taken by parents among the poorer classes to prevent the spread of measles ; it is not regarded by them as a very serious complaint, but considered to be as inevitable as teething, and they reason that it is less trouble in the long run if all the children in the family have the complaint at one time. It

must, however, be admitted that it is difficult to prevent measles from spreading, the disease being highly infectious from an early stage, if not from the beginning. The circumstances, moreover, in which the poor live in London—two or more families commonly occupying one house and using a common staircase—almost preclude the possibility of isolation. More care, perhaps, might be taken to protect the sufferers against the secondary affections, which, as already stated, are, as a rule, the immediate causes of death.

WHOOPIING-COUGH, which was the cause of 119 deaths in 1882, and of 44 only in 1883, proved fatal to 81 persons in 1884, (all but 13 in the Town sub-district), the corrected decennial average being 102. Reference has been made to the insufficient care taken by parents in the humbler walks of life, to prevent the spread of measles; the observation is perhaps even more generally true in regard to whooping-cough, the danger of this always distressing malady being unappreciated by the poor, who, in the engrossing struggle for existence, not unnaturally disregard an ailment which they have come to regard as at once inevitable and not very serious. Often enough the fatal event comes upon them as a surprise, being due to some complicating disease of the respiratory organs, or of the nervous system; few deaths are registered from whooping-cough alone. Intercurrent diseases of the chest, it is true, are not seldom unavoidable, but the occurrence of such diseases is often due to want of care in the treatment of the little sufferers, though I would by no means imply that such want of care proceeds from indifference, still less from intentional unkindness. The little ones are not, perhaps cannot be, confined to the house, even in winter: they catch cold; the "cold" and the "cough" are not differentiated; medical treatment is not sought until the child is obviously very ill, and, when it is obtained, the patient is but too frequently beyond the reach of help.

SCARLET FEVER, fatal to 62 persons in 1882, and to 28 only in 1883, the corrected decennial average being 62, was the cause of the remarkably small number of 18 deaths in 1884. The disease was not epidemic in London, the deaths being 1,200 fewer than

the decennial average corrected for growth of population. Of the Kensington deaths 15 belong to the Town sub-district, and 3 only to Brompton. Seven of the deaths took place in hospitals, to which 87 out of 202 recorded cases were removed for treatment. Of the 202 recorded cases 75 only belonged to North Kensington, *i.e.*, the part of the parish north of the Uxbridge Road, and 127 to South Kensington, *i.e.*, the remainder of the parish south of the Uxbridge Road. The recorded cases in 1882 and 1883 were 319 and 231 respectively. In 1883 the cases in North and South Kensington were 154 and 77. In numerous instances the occurrence of the disease was concealed until recovery had taken place, when the cases were reported in order to secure gratuitous disinfection of the sick rooms and their contents, and in many cases when the existence of the disease became known at an early period, we were unable to persuade parents to consent to the removal of their children to hospital. Occasionally, when it was too late, the refusal came to be regretted. A certain number of patients were, to all appearance, well isolated at home, and the removal of them to hospital was deemed unnecessary, but proofs were not wanting that, even when the patients had what might be fairly described as "proper lodging and accommodation," due care could not have been taken to prevent the spread of the disease, unless it be the fact that no amount of care suffices to prevent it from spreading when once it has found admittance into a family of susceptible persons. In not a few instances, when removal was obviously necessary to security, the greatest difficulty was experienced in obtaining the parents' consent, but in no case was recourse had to the compulsory powers of removal, such as they are, which the Sanitary Act of 1866 confers.

It need hardly be said that the cases generally were of children, usually of school-age, and 87 of the sufferers had been going to school up to the time of the attack. Every effort was made, by co-operation with school teachers, School Board "visitors," etc., to prevent the disease from spreading, and no child was knowingly allowed to go to school from an infected house. The existence of the disease was revealed occasionally by the registration of a death,

and it is the fact that its spread was commonly the result of keeping patients at home under circumstances that rendered nugatory any attempts at isolation.

The following cases may be cited as illustrations of the spread of disease, that might have been prevented by the removal of a first case :—

A carpenter, aged 30, fell ill on December 5th. Two of his children had been attacked on the 3rd and 9th November respectively. The illness of the children was concealed, and the father did not fall ill until a time at which he might well have imagined that all danger of contagion had passed away.

A child, aged 4, fell ill, and the parents refused to let him go to hospital. Three other children contracted the disease; the first child and the third attacked, died. There was plenty of time to have prevented the occurrence of the second and following cases by the removal of the first case, but the parents refused to allow the child, and the other children, subsequently, to go to hospital, much to their regret, afterwards frankly confessed.

A child was taken ill; the disease being mild was mistaken for measles, and no doctor was called in. A young man took the disease, and was removed to hospital. In the same room with him there lodged another man employed at a confectioner's, and who continued at his work for some weeks in ignorance of the nature of the child's indisposition.

In another house, a married woman, aged 34, contracted the disease from her two children, whom she would not allow to go to hospital.

In two families there were four and five cases respectively, the second and subsequent cases in each family resulting from concealment of the primary case.

In another family a child was found going to school while the skin was actively "peeling"; two other children were found to be ill at home at the same time, and two cases occurred subsequently; four of the patients were removed to hospital.

Of the 202 cases, some 40 in all, were "concealed" cases, that might have been removed to hospital with advantage, irrespective of 50 (usually concealed) cases, the removal of which appeared to be unnecessary. In about 30 cases there was absolute refusal to allow the children to be removed, with what results, so far as known, has been indicated above. A few cases were, as usual, imported.

DIPHTHERIA, the mortality from which was in excess in London as a whole in 1884, was the registered cause of 17 deaths only, in Kensington, or 5 below the corrected decennial average; 9 in the Town registration sub-district; and 8 in

Brompton. The deaths from this cause in 1883 were 24, of which only 4 occurred in the Brompton sub-district. Not all deaths classified to diphtheria are really caused by this disease; cases of scarlatina anginosa are sometimes erroneously certified as diphtheria. On the other hand, it sometimes happens that true diphtheria is not recognised in the primary stage, and the specific nature of an apparently simple throat disease does not become known until paralysis supervenes. Cases of croup, again, are sometimes described as diphtheria, and *vice versâ*. Diphtheria, it may be added, does not often show a disposition to become epidemic, or even endemic, in the Metropolis. Occasionally, however, when the disease occurs as a result of insanitary conditions, it will spread in the family, and instances of this kind were not wanting in the past year. The following cases may be cited as of special interest. In one house there were 3 cases (none of them fatal). In the domestic cistern, examination having been made owing to the unpleasant taste of the water, the bodies of several kittens were found tied together. In another house there were 4 cases, all of children. The family occupied two rooms, but one room being under repair, the four children were put to sleep in one bed. One of the children had a throat affection, and the other three caught it. This throat affection proved to be diphtheria, and two of the children died of it at St. Mary's Hospital, whither all four of them had been removed. In another family a first fatal case was mistaken for quinsey: a second fatal case was certified to be diphtheria. The Asylums Board, it may be mentioned, do not treat diphtheria in their hospitals, and difficulty is occasionally found in obtaining means of isolation for patients who, by reason of the circumstances of the family, or the occupation of the head of the family, ought to be removed. One of the deaths occurred in the family of a milkman.

FEVER.—The deaths from the three diseases grouped as "fever" were 30, viz., 18 in the Town sub-district, and 12 in Brompton; the decennial average, corrected for increase of population, being 36.

*Typhus*.—No death from this highly infectious disease was registered in 1884, it being the first year since 1871, when I assumed office, in which this disease does not appear in our statistics of mortality. The Metropolis as a whole was very free from the disease.

*Enteric Fever* was the registered cause of 26 deaths, 14 in the Town sub-district, and 12 in Brompton ; 9 of the deaths occurred in hospitals. The disease was less prevalent than usual in the autumn, and there was no local outbreak of importance at any period of the year.

*Simple Continued Fever* was the cause of 4 deaths in the Town sub-district.

DIARRHŒA.—The deaths from diarrhœa, 110 in number (as against 80 in 1883), were six below the decennial average corrected for increase of population ; 93 of them took place in the Town sub-district, and 17 in Brompton ; 84 were registered in twelve weeks ended September 6th. As usual, the deaths were chiefly of young children, viz., 98 under five years of age, including 86 under one year. The excess of mortality from diarrhœa in the metropolis generally, was upwards of 500 after correction for growth of population. The immediate cause of the comparatively high death rate from diarrhœa, was the otherwise beneficial heat of the summer. In what precise manner a high summer temperature operates to produce this infantile scourge has never been clearly made out ; it is hoped that the enquiry delegated by the Local Government Board to their Inspector, Dr. Ballard, will ultimately throw light on the subject.

## CHOLERA.

Five deaths were registered from English Cholera. Asiatic Cholera broke out at Toulon, in June, 1884, and shortly afterwards appeared at Marseilles. In view of the probability of the disease being conveyed to this country, the Local Government Board (under date, July 8th) forwarded for the information of your Vestry, as sanitary authority, copies of a

Memorandum prepared by their Medical Officer, on the "Precautions to be taken against the infection of Cholera." The Memorandum was substantially the same as that issued in July, 1883. In view of all eventualities the Board were desirous that your Vestry's attention should be again called to the question of taking such measures of precaution as the sanitary condition of the parish might demand.

In July, a conference between the Medical Officers of Health and the General Purposes Committee of the Asylums Board was held, "with a view to the consideration of several points which arose in connection with the carrying out of the Diseases Prevention (Metropolis) Act, 1883, and upon which unity and uniformity of action appear desirable." The questions that naturally arose were, how an epidemic of Cholera could best be met, and especially what convenient buildings or sites might be made available for Cholera Hospitals? The Committee at the same time addressed a communication to each Medical Officer of Health, in which several questions connected with hospital provision, disinfection of excreta, hand-ambulances, notification of cholera cases, &c., were brought under notice. The Society of Medical Officers of Health having met to consider the above communication, and to advise generally on the subjects discussed at the conference, a reply setting forth their views was forwarded in September. With regard to local provision of hospital accommodation, it may be mentioned that the Guardians of the Poor in this parish arranged to put 60 beds at the service of the Asylums Board, 30 at the Infirmary in the Marloes Road, and 30 at the Relief Offices at Mary Place, Notting Dale, an amount of accommodation which, to judge from past experience, would, as I informed the Committee, be ample for the supply of our local wants.

Cholera has again (June) made its appearance in Europe—this time in Spain—and as it is at least probable that the epidemic may extend, it will not be out of place here to refer to the action taken by the Local Government Board in 1883, in view of a then apparently pending emergency, as the action taken at that time may be regarded as an indication of the steps that would be



required, and would be taken, should the disease this year extend to, or approach in the direction of, this country.

The Board issued, in the first place, two "Orders," with a covering explanatory letter for the guidance of Port Sanitary Authorities, who of necessity constitute the first line of defence, and subsequently they communicated with all other sanitary authorities throughout the kingdom. At the instance of the President a conference was held between the Medical Officer of the Board and the Metropolitan Medical Officers of Health, the conclusions arrived at being, that, to safeguard the metropolis against Cholera, "increased attention should be devoted by sanitary authorities and their officers to the ordinary means for improving the sanitary condition of the several districts," and that "the attention of the Local Government Board should be called to the necessity of careful supervision of the sources of water supply in the rivers, and of the storage reservoirs, &c.," on the ground that if cholera should be imported into the metropolis it might be spread, as on a former occasion, through the agency of the water companies.

The "Diseases Prevention (Metropolis) Act," of which I gave a full account in my annual report for 1882 (page 66), has for its object to make "better provision as regards the metropolis for the isolation and treatment of persons suffering from cholera and other infectious diseases." Section 2 constitutes the Managers of the Asylums Board, equally with the Vestries and District Boards, a "Local Authority" under the Diseases Prevention Act, 1855, and enables them to utilize their buildings, ambulances, staff, &c., for the execution of powers and duties conferred or imposed on them under both the Acts. Immediately after the passing of the Act the Managers undertook to provide a limited amount of temporary hospital accommodation for patients of both sexes, and for the whole metropolitan area, irrespective of parochial boundaries. They not merely agreed to utilize any of their buildings, ambulances, &c., and to arrange for the temporary use of empty buildings, or of small plots of land whereon to erect huts, to be under the charge of their own officers, but they also

endeavoured to negotiate arrangements with the governing bodies of general hospitals, and with the several Boards of Guardians, to secure whatever accommodation in the hospitals, the workhouses and the infirmaries, could be made available either for the reception of patients in the infected districts, or for the accommodation of the ordinary inmates of such establishments, who could be transferred to cholera-free districts, in order to provide room for the sick in the vacated buildings in cholera-stricken districts.

Many of the Boards of Guardians, and of the governing bodies of voluntary hospitals, signified their willingness to co-operate with the Managers in making the needful provision of hospital accommodation: the metropolis, therefore, would have been found better prepared than in any previous epidemic had cholera unhappily reached our shores, and the same observation holds good now.

The design in the proposed arrangements was to constitute the Managers a first line of defence, only, for instant action on the appearance of Cholera; for it has been intimated that the Managers would not undertake the exclusive provision of hospitals, and the Local Government Board have clearly laid it down that the course the Managers were prepared with their sanction to adopt in 1883, would in no way absolve the Sanitary Authorities from the duty imposed on them by the Diseases Prevention Act, 1855, should it become necessary by "Order" to put in force the provisions of that Act. In other words should Cholera appear the Vestries and District Boards will have to provide hospitals for the sick in their several districts, as well as places of refuge for the healthy inmates of infected houses—when the sick in them cannot be removed to hospital, whether from the severity of the illness, or owing to the want of accommodation within one mile, which is held to be the furthest distance to which a cholera patient can be properly transported. The regulations issued by the Board in 1866, it may be remembered, imposed on the Vestries, as "local authorities," the duty of making arrangements for the prevention and treatment of the disease, including the medical visitation of poorer houses, for the purpose of

detecting cholera and diarrhoea, and the supply of medical attendance and nursing, and of medicines and disinfectants. The expenses incurred by the Managers under the Act of 1883 form a charge upon the Metropolitan Common Poor Fund.

In a special report (No. 9, July 25th, 1883), on "Precautions against Cholera," I dealt with the subject generally, pointing out what I conceived to be the relative duties devolving upon the central authority (Local Government Board), the local authority (your Vestry), the representatives of the law (the Justices), and the people themselves, in the dreaded emergency. In concluding that report I said, and I now repeat, that individual householders might render invaluable service by reporting to your Vestry whatever nuisances may come to their knowledge, or under their observation, and not less by carrying into effect, each in his own house and family, the advice submitted to each one in Papers which I at that time prepared, and respectively entitled—  
(a) Suggestions for Preventing the spread of Infectious Diseases ;  
(b) General Sanitary Notice; and (c) Precautions against Cholera.

#### SMALL-POX.

One hundred and seventy-seven cases of small-pox were recorded in 1884, as against 8 in 1883, viz.:—76 in North Kensington and 101 in South Kensington—the dividing line running along the centre of the Uxbridge Road, and the population of each division of the parish being in round numbers 85,000. The deaths of parishioners from this disease were 26, inclusive of one death certified (in error) from another cause, viz., 17 in the Town sub-district, and 9 in the Brompton sub-district. The deaths in North Kensington and South Kensington were 13 respectively. Of the 26 deaths, 20 took place in the hospitals of the Asylums Board, to which 157 cases (71 out of 76 from North Kensington, and 86 out of 101 from South Kensington) were removed. Five cases in North Kensington, and 15 cases in South Kensington were treated at home, 6 of them to a fatal issue, irrespective of concealed and unrecognised cases. As usual, many of the South

Kensington cases were of domestic servants, 37 out of 101. Of the 37 cases, 32 were female servants, from thirty houses. From three houses six servants were removed to hospital, two from a house; the primary case in each instance having been either overlooked at first or mistaken for chicken-pox. The "upper classes" escaped, personally, in a remarkable degree, probably as the result of proper attention to vaccination and re-vaccination.

Thirty of the 101 cases in South Kensington were secondary, *i.e.*, they followed on known primary cases in the same houses. Five cases were imported from other districts. Three persons walked into the hospital, and two were removed from out-patient rooms at public institutions. Of the 76 cases in North Kensington, 26 were secondary and 2 were imported. One case was driven to hospital in a private vehicle; the removed patients otherwise were conveyed in the Asylum Board's ambulances.

In a subsequent section of the report there will be found a tabular statement of the number of cases of small-pox recorded in 1884, the year having been divided into two parts representing, respectively, the periods before and after the re-opening of the Western Hospital at Fulham. Before the re-opening of the hospital, which took place on May 17th, 23 cases were recorded in Kensington. The first case was imported from Hackney and occurred at Dartmoor Street, South Kensington. The child's illness, which commenced December 19th, 1883, was concealed from the other inmates of the house, three of whom, in two families, fell ill in January. In March, a journeyman tailor fell ill at Wallgrave Road, South Kensington. This man, the origin of whose illness could not be traced, presented himself for treatment at the dispensary in Marloes Road. The eruption of small-pox was fully developed, and according to the man's own statement not only had he been sleeping several nights in the same bed with another man, ignorant of the nature of his illness, but he had also been going about as usual by day. Interesting as were the above cases, they do not appear to have been the cause of any small-pox spread in Kensington, for during the four weeks ended April 19th, no case of the disease was recorded.

In the four weeks ended May 17th there were five cases recorded in Kensington, four of them in North Kensington. Small-pox was at this time, and for some weeks previously had been, on the increase in London. On May 17th there were 735 patients in the hospitals of the Asylums Board, the number having steadily increased in the previous eight weeks from 148. At this time the Western (Fulham) hospital was re-opened for the reception of small-pox patients. In my monthly report of the same date, in calling attention to the rapidly extending epidemic, I wrote as follows :—

“ The main brunt of the epidemic, so far, has been on the parishes in the northern and eastern districts, a simultaneous outbreak having commenced at Hackney, Islington, Bethnal Green, and Shoreditch, in March. My colleague, the Medical Officer of Health for Hackney, has published his opinion that the outbreak, so far as that parish is concerned, was in some way connected with the Eastern Hospital (at Homerton), and yet the cases of small-pox in that hospital, at the time, barely exceeded a score, while the cases had been more numerous at a previous time, in the current year, without any ill results upon the district. Referring to previous epidemics, the same authority has stated that there had been no ground for suspecting aerial dissemination of small-pox at 200 yards distance, however overcrowded the hospital may have been, (and it has received as many as 150 patients at one time), although there was ground for suspicion that infection had spread to a distance of 110 yards, when more than fifty patients had been in the hospital. In March, as already stated, the number of patients scarcely exceeded 20, and yet the hospital is supposed to have been connected in some occult way with the spread of infection, more particularly within a quarter of a mile, although the cases were spread over a very much larger area in Hackney and adjoining parishes. I allude to this opinion here, and now, because the Western (Fulham) Small-Pox Hospital has been re-opened, and because, if the Eastern Hospital has spread small-pox by aerial dissemination in Hackney, the Western Hospital may, in like manner, spread the disease in Kensington.”

In the remainder of the month of May, 18th to 31st, the Western Hospital received 11 Borough of Chelsea patients, and very few besides : 12 new cases were recorded in Kensington, 8 of them in North Kensington—including 1 concealed case in Bransford Street, which gave rise to 9 other cases in the same house—and 4 in South Kensington. In the following fortnight ending June 14th (at which date there were 1,238 cases in the Asylum Board's Hospitals, the new cases recorded were 41,—15 in North Kensington and 26 in South Kensington.

Referring to this considerable extension of the disease in the parish I wrote in my sixth Monthly Report (June 14, page 34), as follows:—

“As in the previous twenty weeks there had been 23 known cases only of Small-pox in the parish, 13 in North Kensington and 10 in South Kensington, this outbreak may be deemed sufficiently serious, and the question will naturally arise, to what cause or causes was it due? This question I am not in a position to answer with precision. I will, however, submit what information I have been able to obtain, and in the first place it has to be remarked that the disease has not been nearly so prevalent in Chelsea and Fulham as in Kensington. The Medical Superintendent of the Western Hospital, has obligingly furnished me with much interesting information, from which it appears that 40 Borough cases were admitted between May 17 and June 12, of which 26 belonged to Kensington, 10 to Fulham District, and 4 to Chelsea. Eleven of the cases were infected before the Hospital was opened, and 29 after that event. Of the 11 cases, 7 belonged to Kensington, 1 to Fulham, and 3 to Chelsea, while of the 29 cases, 19, 7 and 3 belonged to the three districts respectively. The earlier 11 cases appear not to afford much explanation of the subsequent 29 cases, of which 3 were infected before May 19th, 5 after May 22nd, and 21 (15 of them in Kensington), in the four days May 19th to 22nd, on which days there were only 5 cases in the hospital. It is a curious fact that whilst of the 11 cases infected prior to May 15, 2 only were in the “Special Area,” by far the larger proportion of the 29 cases infected after May 17th and before May 31, occurred within that area, which represents a circle with a mile radius, having the hospital for its centre. But of these 29 cases only 2 occurred within a quarter-mile of the hospital. The histories supplied do not afford much definite information as to origin of illnesses, but the large preponderance of cases of domestic servants attacked (in Kensington) will not fail to attract attention, this having been a notable feature in all the epidemics of Small-pox of which I have had experience. As usual, many of the servants got infected on a Sunday. A few of the patients alleged that they had come in contact with persons having spots on their faces. One man was working near the Hospital, ambulances and hearses passing quite close to him. Some of the sufferers were unprotected by vaccination. In two streets only have there been two houses invaded hitherto, both in South Kensington. In one of these two streets, Victoria Road, more than a mile from the Hospital, the infection was received at about the same time: one case was that of a civil servant, the other of a domestic servant. In the second street, Kempsford Gardens, both sufferers were young children, who may have come in contact with some third person suffering from the disease, the date of infection being nearly identical: this street is about a quarter of a mile from the Hospital. Contact at school may have had something to do with the spread of disease, but, taken altogether, the information at my disposal is inconsiderable. The type of disease has hitherto been mild, so far as I can ascertain, and it is quite conceivable that other cases than those within my knowledge may have been overlooked, or mistaken for chicken-pox, and that the ‘sufferers’ have been acting as peripatetic carriers of the disease.”

The following cases were cited as illustrations of probable modes of spread of the disease :

C. D., a servant, was stricken with illness about May 15th ; four or five days later the occurrence of another case in the same house suggested a common origin for both cases, and ultimately it was discovered that A. G., a fellow servant, with whom C. D. slept, had suffered from what was supposed to be chicken-pox, but was doubtless modified small-pox. A. G. had never been laid up at all.

J. K., a carpenter, who worked in Chelsea, was stricken with small-pox, and the illness was concealed from the other residents in the house ; the attack was slight, and after a fortnight at home he resumed out-door exercise, daily, while still infective.

W. S., a plumber, who lived at Notting Hill, walked into Stockwell hospital, May 28th, from King's Cross, where he was at work, and whither he had travelled by train. His sister had had supposed "chicken-pox," and her husband had had small-pox. They resided at Clapham, and W. S. had visited them.

G. B., a bricklayer, walked into the Western Hospital, on the 5th of June, having first gone the same day from West Brompton to Sloane Street to see a doctor. He went to a provincial city on May 31st, and appears to have sickened the same day : he returned to town (by train of course), June 4th.

E. D., a servant, is stated to have been visited at her "place" on the infection day (her "Sunday-in"), by a young man who had spots on his face, which *may* have been varioloid.

E. M. and J. F., domestic servants in separate families, sought medical advice for spots on the face, &c., at a medical man's surgery one day ; the same night one of them, and the next day the other, was found to be suffering from small-pox, and both of them were removed to hospital.

D. M. contracted small-pox, May 17th, and subsequently gave the disease to her sister, A. M., June 3rd, and to her cousin, E. I., June 6th. These 3 cases were treated at home.

A medical practitioner reported two cases as follows : (1) A man had modified small-pox and would not go to hospital ; contrary to advice, and not feeling ill, he persisted in returning to his work, while still infective. (2) A father caught the disease from one of his children, who had had, what was supposed to be chicken-pox, but was, no doubt, small-pox.

In the following four weeks (June 15—July 12) the new cases in Kensington were 35—18 in North Kensington, and 17 in South Kensington.\* The cases in the Asylums Board Hospitals, which had risen to 1,368 on July 5th, had fallen on July 12th to 1,242.

---

\* It may be mentioned that the figures here given do not correspond with those published at the time in the monthly reports. Then, I stated the number of cases recorded month by month ; now, I am in a position to class the cases according to the date of "invasion."

The age-distribution of cases in North and South Kensington respectively, at this time, and throughout the epidemic, was much the same as in former epidemics, there having been many children attacked in the north and few in the south. In the south, on the other hand, female servants continued to furnish a large proportion of total cases. As regards locality it is worthy of mention that in the north district no case had previously been recorded in the year in thirteen out of the fourteen streets invaded during the month under consideration, but there had previously been one case in each of five streets, out of the fourteen invaded in the south district. In the north, in one street only did the disease appear in two houses; in the south, the disease appeared in three houses in one street and in two houses in two streets; in each of the other streets there was but one case.

The Medical Superintendent of the Western Hospital, in continuation of previous reports, informed me that during the four weeks ended July 9th, patients were admitted from 63 houses in the borough, newly invaded, viz.: 24 (=38 per cent.) in, and 39 (= 62 per cent.) beyond, the "Special Area." In the central quarter-mile circle no house was invaded; in the  $\frac{1}{4}$ - $\frac{1}{2}$  mile ring eleven houses were invaded; in the  $\frac{1}{2}$ - $\frac{3}{4}$  mile ring twelve houses; in the  $\frac{3}{4}$ -1 mile ring one house. Of the 87 borough cases admitted during the same period, 35 came from Kensington, 24 from Chelsea, and 28 from the Fulham District. One hundred and twenty-seven borough cases had been admitted, to date, since the re-opening of the Hospital, on May 17th, viz., from Kensington 61, from Fulham 38, and from Chelsea 28.

The month (June 15—July 12) brought forth the following further illustrations of modes of spread of the disease—

A. A., a girl, aged 9, at Bransford Street, Notting Hill, was attacked with small-pox on or about May 24th. The parents, being "opposed to doctors," did not call in medical aid, and they concealed the case from the other inmates of the house, the result being that nine cases subsequently occurred and were removed to hospital, viz., the father of the girl and two of his children, 4 children in a second family, and a mother and a child in a third family. All the cases did well. Through contact with one of the families, an outbreak of the disease occurred in a house in an adjoining street, whence three cases (one fatal) were removed to



hospital: otherwise there was no extension of the disease in the immediate district which could be traced to the outbreak. Seven of the cases it may be added were removed to hospital at one time.

R. C., an ironmoulder, aged 42, was attacked about June 10, and was treated at home. The case, a mild one, was concealed, and I did not hear of the outbreak until a woman in the same house had died of the disease, which she caught from the man. When the house was visited, a sister of the deceased was found to be ill; she was removed to hospital and died there. Both of the women were married; one of them left five, and the other two, children.

H. M., aged 27, a female servant left in charge of a house in Ovington Gardens, South Kensington, was attacked on or about June 2nd; the case was concealed, until it became necessary to apply for the removal of the body to the mortuary. The father of the deceased had been opposed to vaccination, and most of his family, including the deceased, were unprotected; nevertheless, several members of it went to see the patient, the result being that two brothers and one sister contracted the disease, and were removed to hospital. One of the brothers died; the other, (he had been vaccinated), had a mild attack; the sister was removed from Chelsea. In another house exactly opposite, a female servant was subsequently attacked, and possibly she may have been infected by the first of the above mentioned cases, but on the infection day she went to the S.E. district, and may have received infection there. This patient was removed to hospital on the 12th day of her illness. Next door there was another case, of a servant man, but this clearly was imported from the north of England.

W. S., a girl, aged 3, had an attack of supposed chicken-pox: in due course her mother was removed to hospital with small-pox.

A. D., a servant, aged 15, feeling unwell, went to call upon her mother in Chelsea, whence she had come about nine days previously; she then went to see a doctor, who found the eruption of small-pox well out on her. She was at once removed to hospital.

W. F., a gardener's boy, aged 16, went to a dispensary for treatment; he was found to have small-pox, and after some hours delay was removed direct to hospital. His brother and mother were subsequently removed to hospital. Previously there had been another case in the small *cul de sac*, in which this family had their abode.

M. G., a servant, aged 16, being ill, was sent to St. Leonards, where she was found to have small-pox.

Up to this time, (July 12th), five persons had "walked in" to the Western Hospital, two of them from Kensington. Three Kensington cases were admitted at the South-Western Hospital within the four weeks, one of them walked in, and the other two were transferred from St. Mary's Hospital, whither they had walked. The next month (July 13th—August 9th) witnessed a remarkable falling off in the number of cases, only 5 having occurred in the

four weeks, 3 in North Kensington, and 2 in South Kensington; 3 of the cases, moreover, were in houses where the disease had previously existed. The cases in the hospitals, which on July 12th were 1,242, had declined to 892 on August 9th. The Western Hospital, which contained 16 patients on the 1st August, admitted 37 cases in the four weeks ending on that day: 6 patients died, 2 were discharged recovered, and 44 were transferred to the Ship Hospitals or the Camp in the same period of four weeks.

In the following month, (August 10th—September 6th), there were only 2 cases, both in North Kensington. The cases in the Asylums Board Hospitals had further fallen on September 6th to 530. During the four weeks ended August 29th, the Western Hospital received 14 patients; 4 were discharged recovered, 23 were transferred to the Ship Hospitals or the Camp, only 3 remaining under treatment on the 29th August.

In the next ensuing month, (September 7th—October 4th), small-pox began again to increase, but slowly at first, in the Metropolis. On October 4th the number of cases in the hospitals, which had fallen in eleven weeks from 1,368 to 471, had risen again to 533, the bulk of the cases, however, being at the Darent Camp, where more than 3,000 cases in all—and more than 1,000 at one time—had been treated since March, principally in the convalescent stage. The Western Hospital received 5 cases only in the four weeks ended September 26th. Seven cases occurred in the Parish during the four weeks, 4 in North Kensington, and 3 in South Kensington.

In the four weeks, October 5th—November 1st, the Kensington cases were again 7, only 2 of them occurring in South Kensington; 2 of the cases, moreover, were imported. On November 1st, there were 580 patients in the Board's Hospitals. The Western Hospital admitted 16 patients in four weeks to October 24th, 7 patients remaining under treatment at that date. At this time the Asylums Board had ceased to publish returns of cases admitted into their hospitals from single parishes and unions, and therefore I have no information as to the parishes, etc., from which patients were admitted at the Western Hospital.

In the following month (November 2nd—29th), Kensington cases rose to 20, viz., 11 in North Kensington, and 9 in South Kensington. One case was imported; and 7 cases occurred in houses where the disease had previously existed. On November 29th, the number of patients in the hospitals had risen, from 580 on November 1st, to 884. In the four weeks ended November 21st, 27 patients were admitted at the Western Hospital, and on the 21st, 17 patients were remaining under treatment.

In the remaining five weeks (November 30th—January 3rd, 1885), completing the registration year 1884, there was a considerable increase in the number of small-pox cases in Kensington, 37 having occurred, 5 in North Kensington, and 32 in South Kensington. Twelve deaths of Kensington people were recorded in the four weeks. On January 3rd, there were 1,013 patients in the hospitals, only 10 of them in the Western Hospital, into which, however, 40 cases had been admitted in the four weeks ended January 2nd, and from which 27 cases were transferred to the Ship Hospitals or the Camp.

As evidence of the severe type of the disease at this time, (when, it is to be remembered, none but “severe” cases were admitted), it may be mentioned that 22 patients died at the Western Hospital within the four weeks. The story of small-pox experiences in 1884, may be completed by the following extract from my last report (No. 14, January 3rd, 1885, page 96.)

Two boys were found to be suffering from the disease in a small poor house about 500 yards distant from the Western Hospital: the origin of their illness could not be made out for some time, but it was afterwards ascertained that their mother had had small-pox a fortnight before without knowing the nature of her illness and had infected her sons; they in turn infected a sister.

A grocer's assistant, the origin of whose illness was not traced, continued to serve behind the counter in a grocer's shop, for two days, in ignorance of the nature of his illness. He walked to the hospital and was admitted.

A case of supposed chicken-pox was followed by a case of undoubted small-pox.

At a mews in the north of the parish a man fell ill, and as the doctor did not recognize the nature of the illness, he was not removed for seven days. His son, aged 10, contracted the disease as well as a young man, aged 17, in his employ, but who lived in another street. These patients were removed to hospital, as well as a poor woman living in the mews who had shown neighbourly attention to the man in his sickness. The woman died, and the boy also.

In another family the first case infected two others ; all three cases were removed to hospital and recovered.

A gentleman fell ill and died in two or three days ; his illness was supposed to be *purpura hæmorrhagica*, but evidently it was hæmorrhagic small-pox, for not long afterwards a man fell ill in the same house, with modified small-pox, and a female neighbour who had visited the sick gentleman contracted confluent small-pox. The gentleman died on December 17th; the other two cases were not recognized to be small-pox until January 5th, when the man was in about the tenth, and the woman about the eighth, day of illness. The woman was removed to hospital, and died ; the man recovered.

A man who had slept at a common lodging-house at Notting Hill being ill, was seen on December 26th by a medical man, who ordered his removal to the work-house infirmary. On the 27th the patient, thought to be suffering from scarlet fever, was removed to the Western Hospital, where he died next day of hæmorrhagic small-pox.

Two out of the four persons in one family who had contracted small-pox, as above-mentioned, were unvaccinated at the time. One, a boy, aged six, died of confluent small-pox. Another, a girl, aged two, was vaccinated about three or four days after she became infected. This child had a mild or "discrete" attack of small-pox, the disease and the vaccination progressing side by side. Her life was saved by the vaccination modifying the character of the small-pox. The two vaccinated cases did well.

The epidemic it may be mentioned has continued with varying severity to the present time (June, 1885). At the end of May there were nearly 1,400 patients in the hospitals or the Camp ; as many as 354 patients having been admitted in a single week in May. The Highgate Hospital is and has continuously been very full, as many as 100 patients, sometimes, being under treatment at once, a number far exceeding the limit fixed by the Asylums Board as the maximum of patients to be treated at one time in any of their London hospitals.

#### WESTERN (LATE FULHAM) HOSPITAL.

From the report of Mr. Sweeting, the Medical Superintendent, we learn that the Western Hospital was open during the whole of the year 1884, having been used first for fever only, then for small-pox only, and finally for both small-pox and fever. The

Managers intend that henceforth the hospital shall be, in fact as in name, a "Fever Hospital," a certain number of beds, however, being reserved for temporary isolation of persons suffering from small-pox, but too ill to be removed direct from their homes to the Hospital Ships. The permanent reconstruction of the hospital, to fit it for its intended use—the plans for which have been approved by the Managers and the Local Government Board—will be proceeded with as circumstances permit. It is proposed to adapt the present Fever Wards for the separate treatment of three classes of Fever, viz.: Scarlet, Typhus, and Enteric, and to provide an Isolation Ward for each sex, for cases of faulty or doubtful diagnosis. The arrangements appear to be well calculated to give effect to the necessary classification of the sick of both sexes. Small-pox cases are transferred as soon as possible to the Hospital Ships or to the Darenth Camp. In course of time an Embarkation Pier will be provided at the "West Wharf," near Wandsworth Bridge, and then patients will be removed at an earlier stage than is now possible. The distance from the hospital to the "South Wharf" (at Rotherhithe) makes it unsafe to transfer patients, at present, so soon as could be desired. It is to be hoped that the Pier will be completed with as little delay as possible. The number of patients removed by the Western Ambulance Service up to December 31, was 948. But to resume :—

**FEVER.**—On December 31, 1883, there were 43 patients remaining; during 1884, there were 130 admissions, 10 deaths, and 104 discharges, leaving 59 under treatment at the end of the year. Of the admissions, 114 were scarlet fever, 6, enteric fever, and 10, "other diseases." The scarlet fever mortality was below 5 per cent., 78 of the 114 admissions were of children under ten years of age.

**SMALL-POX.**—From May 15 to the close of the year, 300 cases were admitted, 62 died, and 229 were discharged, leaving 9 under treatment. The cases were admitted from the following parishes :—Kensington, 93; Fulham, 81; Chelsea, 37 (= Borough of Chelsea cases, 211); Paddington, 20; St. George's, Hanover Square, 84;

Westminster, 5 ; St. Marylebone, 4 ; St. Pancras, 1 ; Hampstead, 2 ; Islington, 1 ; St. Giles and St. George, 9 ; Strand, 4 ; Holborn, 1 ; Bethnal Green, 1 ; St. Saviour's, 3 ; Lambeth, 2 ; Wandsworth and Clapham, 2. Total 300. All the "discharges" were transferred to the Ships or the Darent Camp. Mr. Sweeting does not dwell on the mortality rates of different classes of cases, *e.g.*, the vaccinated, the "doubtful" as to vaccination, and the unvaccinated classes, as the bulk of the cases were not "completed" at the hospital; but he gives the general result only. Among the vaccinated cases (282), the mortality was in round numbers 14 per cent., that of the other two classes (68 cases), being 41 per cent. Two distinct classes of cases of small-pox were received during the year, "mixed" cases, mild and severe, coming under treatment between May and October. The maximum number in hospital at one time in this period was 35, and the "transfers" were mostly actual convalescents sent direct to the Camps. In October, on the recrudescence of the epidemic in a more virulent form, the admissions were of "severe" cases only, too ill to be sent direct from their own homes to the Ships, the maximum number under treatment being limited to 30. The patients were transferred to the Hospital Ships when recovered sufficiently to be conveyed, lying down, to the wharf, and thence by ambulance steamer. The difference in the two classes of cases admitted in the two periods, is shown by the mortality, for out of 170 admissions in the first period, there were but 17 deaths, as against 45 out of 130 admissions in the second period. Fifty-three patients were placed on the "dangerous" list, and were visited by 73 visitors, who paid 138 visits. The mother and brother of one patient contracted small-pox and were admitted as patients. A third visitor was said to have been attacked 13 days after his visit, though he was not admitted, as being an extra-metropolitan resident. "Nothing short of compulsory revaccination of visitors," says Mr. Sweeting, "will prevent these occurrences . . . and it is a serious question whether this should not be insisted upon, since the hospital is usually blamed for what might

easily be prevented by the visitors themselves." It is satisfactory to be informed that "the number of enquiries at the gate concerning patients has fallen to a fraction of what it used to be, enquiry and answer being now made largely by letter." Perhaps the most interesting feature in connection with the work of the hospital, was an outbreak of small-pox in the scarlet fever wards. There were 6 cases in three wards, between November 29 and December 17, among convalescents. The patients had been resident in the hospital from 28 to 46 days before an attack, "so the possibility of their infection outside must be excluded." The cases occurred in two groups, Nos. 1 to 4 invaded November 29 and December 5, and Nos. 5 and 6 invaded December 12 and 17. "The second group," it is said, "cannot be altogether referred to infection from the first group, since one of the (2) cases comprised in it occurred in a different ward. On the other hand, case 5 inhabited the same ward as case 2 and was attacked exactly 13 days after that case." "The facts on the whole are suggestive of community of origin in each instance for members of the groups." The possibility of infection having been carried in the clothing of an assistant medical officer, who occasionally visited the fever wards, is referred to, and means have been taken to prevent the recurrence of such a possibility. "Failing this explanation of the outbreak one has to consider the question of aërial transmission of infection." The small-pox wards and fever wards are on opposite sides of the site and distant from one another about 150 feet. At no time when small-pox cases were occurring in the fever wards, were there more than 20 patients in the small-pox wards. All the cases in the fever wards were mild and they did well. It may be mentioned that the occurrence of small-pox among the fever patients in the Managers' Hospitals is very rare, although the distance separating the two classes of cases is necessarily limited, the fever patients being well within what would be called the "striking distance" of the small-pox *contagium*, were the question of outbreaks beyond the walls of a hospital, and in the "special area," under consideration.

### THE SMALL-POX EPIDEMIC OF 1884.

Towards the latter end of 1884, and before the recrudescence of the epidemic, I prepared the subjoined Tables, A to K, based on the fortnightly returns of admissions at the hospitals, with the view to inform myself as to the origin and the progress of the epidemic.

Small-pox was at low ebb in November, 1883, when the Tables begin, and the epidemic, which commenced in March, 1884, had practically terminated in September, when the Tables end; at which time, moreover, the Asylums Board ceased to publish detailed returns of admissions and movements of small-pox cases.

The evidence furnished by the Tables shews that the epidemic started at Hackney, and in adjoining districts, north and east, and thence spread to other parts of the Metropolis; that it reached its maximum in June, and that the subsequent marked and rapid subsidence of the epidemic was coincident with the adoption of a system of direct removal of patients from their own homes to the hospital ships, by means of which the convergent and divergent small-pox traffic in the vicinity of the hospitals was reduced to a minimum. The hospitals are six in number, viz., the Eastern, at Hackney; the South-Western, at Lambeth; the South-Eastern, at Deptford, but adjacent to Camberwell; the North-Western, at Hampstead, but adjacent to St. Pancras (in which parish the Highgate Hospital is located); the Western, at Fulham, but adjacent to Kensington and Chelsea; and the Plaistow Hospital, at West Ham, outside the metropolitan boundary.

In November, 1883, two hospitals only were admitting patients, the Eastern and the South-Western. The South-Eastern Hospital was opened at the middle of January, 1884. The Hospital Ships were opened on February 9th, and between February 9th—14th, 42 patients were transferred to them from the Eastern Hospital. The Darenth Camp was opened April 3rd; the North-Western, the Western, and the Plaistow Hospitals were opened successively at the beginning, the middle, and the end of May.

On November 9th, 1883, the Eastern and South-Western Hospitals contained 30 and 5 patients respectively, and they admitted 3 and 2 patients only in the fortnight ended on that day. (See Tables A and B on following pages.)



## SMALL-POX EPIDEMIC OF 1884.

**TABLE A.**

Shewing the number of Patients remaining under treatment at each of the Hospitals at successive fortnightly dates :—

DATE.	DESIGNATION OF HOSPITAL.								TOTAL.
	Eastern.	South Western.	South Eastern.	North Western.	Western.	Plaistow.	Ships.	Darent Camp.	
1883.									
Nov. 9.....	30	5	...	...	...	...	...	...	35
„ 23.....	46	3	...	...	...	...	...	...	49
„ 7.....	60	11	...	...	...	...	...	...	71
„ 21.....	66	20	...	...	...	...	...	...	86
1884.									
Jan. 4.....	61	36	..	...	...	...	...	...	97
„ 18.....	69	36	Opened Jan. 5	...	...	...	...	...	105
Feb. 1.....	83	25	6	...	..	...	Opened Feb. 9.	...	114
„ 15.....	42	19	12	...	...	...	42	...	115
„ 29.....	34	13	12	...	...	...	80	...	139
Mar. 14.....	23	12	13	...	...	...	105	...	153
„ 28.....	44	21	25	...	...	...	174	Opened April 3.	264
April 11.....	54	23	12	...	...	...	146	100	335
„ 25.....	43	16	22	Opened May 6	...	...	144	114	339
May 9.....	47	41	27	11	Opened May 17	...	178	409	713
„ 23.. ...	49	27	27	31	5	Opened May 31.	136	599	874
June 6.....	36	34	32	25	28	32	116	769	1,072
„ 20.....	43	32	32	18	29	11	214	932	1,311
July 4.....	33	23	39	23	31	11	222	996	1,378
„ 18.....	20	25	29	11	22	24	168	864	1,163
Aug. 1.....	17	20	19	8	16	11	105	735	931
„ 15.....	26	11	16	5	13	13	124	454	662
„ 29 .....	21	12	12	8	3	6	94	395	551
Sept. 12.....	20	14	10	18	2	12	80	332	488
„ 26.....	14	11	12	15	3	28	102	332	517

## SMALL-POX EPIDEMIC OF 1884.

TABLE B.

Shewing the number of Acute Cases *admitted* at the several Hospitals in successive fortnightly periods.

FORTNIGHT ENDED.	DESIGNATION OF HOSPITAL.							TOTAL.
	Eastern.	South Western.	South Eastern.	North Western.	Western.	Plalslow.	Ships.	
1883.								
November 9.....	3	2	..	...	...	...	...	5
" 23.....	30	3	...	...	...	...	...	33
December 7.....	28	9	...	...	...	...	...	37
" 21.....	33	11	...	...	...	...	...	44
1884.								
January 4.....	13	17	Opened Jan. 5	...	...	...	...	30
" 18.....	27	6		...	...	...	...	33
February 1.....	35	5	5	...	...	...	...	45
" 15.....	23	1	7	...	...	...	...	31
" 29.....	44	5	3	...	...	...	...	52
March 14.....	44	4	4	...	...	...	...	52
" 28.....	136	14	13	...	...	...	...	163
April 11.....	102	8	3	Opened May 6	...	...	...	113
" 25.....	123	9	12		Opened May 17	...	...	144
May 9.....	285	37	18	12	6	Opened May 31	...	352
" 23.....	219	9	25	44		87	Sick sent Direct.	303
June 6.....	409	32	34	41	25	32	48	573
" 20.....	319	52	63	68	46	87	257	683
July 4.....	87	40	52	39	41	17	178	533
" 18.....	51	23	25	23	25	15	79	340
August 1.....	21	15	25	29	11	3	43	183
" 15.....	28	15	27	43	9	11	54	176
" 29.....	22	11	7	14	5	4	59	117
September 12.....	16	14	11	35	2	10	73	147
" 26.....	9	4	19	29	3	35	73	172
	2,107	346	353	377	173	214	791	4,361

N.B.—The great reduction in the number of cases admitted at the Eastern Hospital in the fortnight ending June 20th, and subsequently, was due to the fact that at and after that date cases were sent direct to the Hospital Ships from their own homes. The majority of such cases were sent from the districts which previously had been the feeders of the Eastern Hospital.

Shewing the Parishes and Unions from which Acute Cases of Small-Pox were admitted at the Eastern Hospital (at Honerton, in Hackney Parish), in successive fortnightly periods.

UNIONS AND SINGLE PARISHES.	1883				1884												TOTAL.
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	
Western District.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kensington	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fulham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paddington	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chelsea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. George's	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Westminster	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Northern District.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Marylebone	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Pancras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampstead	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Islington	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hackney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central District.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Giles & St. George, Bloomsbury	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Strand	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Holborn	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
London, City of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eastern District.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shoreditch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bethnal Green	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whitechapel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. George's-in-the-East	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stepney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mile End Old Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poplar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Southern District.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Saviour's	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Olave's	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lambeth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wandsworth and Clapham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Camberwell	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Greenwich	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Woolwich	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lewisham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cases admitted in the fortnight	3	30	28	33	13	27	35	23	44	136	102	123	285	219	409	319	2,107
Cases remaining at the end of the fortnight	30	46	60	66	61	69	83	42	34	23	44	54	47	49	36	43	14



Showing the Parishes and Unions from which Acute Cases of Small-Pox were admitted at the South-Eastern Hospital (at Deptford, in the Greenwich Union), in successive fortnightly periods.

UNIONS AND SINGLE PARISHES.	1883				1884				Feb.	Mar.	Apr.	May	June	July	Ang.	Sep.	TOTAL.
	Nov.	Dec.	Jan.	Feb.	Dec.	Jan.	Feb.	Mar.									
Western District.	Kensington ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Fulham ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Paddington ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chelsea ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	St. George's ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Westminster ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Northern District.	St. Marylebone ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	St. Pancras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hampstead ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Islington ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hackney ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Central District.	St. Giles & St. George, Bloomsbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Strand ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Holborn ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	London, City of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Shoreditch ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eastern District.	Bethnal Green ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whitechapel ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	St. George's-in-the-East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Stepney ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Mile End Old Town	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southern District.	Poplar ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	St. Saviour's ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	St. Olave's ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Lambeth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Wandsworth and Clapham	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southern District.	Camberwell ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Greenwich ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Woolwich ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Lewisham ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases admitted in the fortnight	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cases remaining at the end of the fortnight	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..



## SMALL-POX EPIDEMIC OF 1884.

TABLE G.

Shewing the Parishes and Unions from which Acute Cases of Small-Pox were admitted at the Western Hospital  
(in Fulham Parish), in successive fortnightly periods.

UNIONS AND SINGLE PARISHES.	1883			1884														TOTAL								
	Nov. 9	Dec. 23	Dec. 7	Dec. 21	Jan. 4	Jan. 18	Feb. 1	Feb. 15	Feb. 29	Mar. 14	Mar. 28	Apr. 11	Apr. 25	May 9	May 23	Jun. 6	Jun. 20		July 4	July 18	Aug. 1	Aug. 15	Aug. 29	Sept. 12	Sept. 26	
Western District.	Kensington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	16	22	17	6	2	2	2	1	1	71
	Fulham ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	11	18	11	5	3	...	...	1	51
	Paddington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	2	2	1	1	10
	Chelsea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	9	4	4	1	2	1	...	...	25
	St. George's ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3	...	2	...	...	...	...	...	11
	Westminster ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Northern District.	St. Marylebone ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	St. Pancras ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hampstead ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Islington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hackney ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central District.	St. Giles & St. George, Bloomsbury	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
	Strand...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Holborn ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	London, City of ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cases admitted in the fortnight ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	25	46	41*	25	11*	9	5	2	3	173
Cases remaining at the end of the fortnight	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	28	29	31	22	16	13	3	2	3	...

\* Total cases in the Western Hospital.

## SMALL POX EPIDEMIC OF 1884.

TABLE H.

Shewing the Parishes and Unions from which Acute Cases of Small-pox were admitted at the Plaistow Hospital, opened May 31st, 1884, at West Ham (outside the Metropolitan Boundary), in successive fortnightly periods.

UNIONS AND SINGLE PARISHES.	1883					1884					TOTAL.													
	Nov.	Dec.	Dec.	Jan.	Jan.	Feb.	Feb.	Feb.	Feb.	Mar.		Mar.	Apr.	Apr.	May	May	June	June	July	July	Aug.	Aug.	Sep.	Sep.
	9	23	7	21	4	18	1	15	23	14	28	11	25	9	23	6	20	4	18	1	15	29	12	26
Northern District.	St. Marylebone	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. Pancras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hampstead	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Islington	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hackney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	11	12
Central District.	St. Giles & St. George, Bloomsbury	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Strand...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Holborn	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
	London, City of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eastern District.	Shoreditch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	4
	Bethnal Green	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	8
	Whitechapel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	15	3	4	1	1	...	2	30
	St. George's-in-the East	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	21	2	2	...	3	...	1	42
	Stepney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	5	3	2	...	...	...	...	18
	Mile End Old Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	32	5	5	2	4	...	1	2
Poplar...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	4	2	...	3	4	9	6	43



Shewing the Parishes and Unions from which Acute Cases of Small-pox were admitted at the Six London Hospitals, in successive fortnightly periods, being a Summary of Tables C, D, E, F, G, and H.

[illegible]

## SMALL-POX EPIDEMIC OF 1884.

TABLE J.

Shewing the Parishes and Unions from which Acute Cases of Small-pox were admitted direct from their own homes at the Hospital Ships, in successive fortnightly periods.

UNIONS AND SINGLE PARISHES.				Aug. 1	Aug. 15	Aug. 29	Sep. 12	Sep. 26	Total.
Western District.	{	Kensington ... ..	1	1	...	...	3	5	
		Fulham ... ..	...	...	...	...	...	1	
		Paddington ... ..	...	...	1	...	...	1	
		Chelsea ... ..	...	1	...	...	...	1	
		St. George's ... ..	2	...	...	...	...	2	
		Westminster ... ..	1	...	...	...	...	1	
Northern District.	{	St. Marylebone ... ..	4	3	1	3	3	14	
		St. Pancras ... ..	4	2	5	4	13	28	
		Hampstead ... ..	2	1	4	6	3	16	
		Islington ... ..	3	1	4	6	12	26	
		Hackney ... ..	19	5	1	4	19	48	
Central District.	{	St. Giles & George, Bloomsbury	1	2	2	1	...	6	
		Strand... ..	3	1	1	...	1	6	
		Holborn ... ..	1	1	...	...	4	6	
		London, City of ... ..	...	...	...	...	...	...	
Eastern District.	{	Shoreditch ... ..	5	...	2	2	6	15	
		Bethnal Green ... ..	2	6	1	2	4	15	
		Whitechapel ... ..	1	1	2	2	1	7	
		St. George's-in-the-East	2	1	...	...	4	7	
		Stepney ... ..	1	2	4	...	2	9	
		Mile End Old Town ... ..	1	...	2	1	3	7	
		Poplar ... ..	4	7	5	16	17	49	
Southern District.	{	St. Saviour's ... ..	2	...	3	2	6	13	
		St. Olave's ... ..	...	1	4	...	...	5	
		St. Lambeth ... ..	4	2	5	...	2	13	
		Wandsworth and Clapham ...	2	1	...	2	...	5	
		Camberwell ... ..	7	3	1	1	...	12	
		Greenwich ... ..	2	1	3	1	...	7	
		Woolwich ... ..	3	...	1	...	...	4	
		Lewisham ... ..	...	...	...	3	1	4	
Beyond Metropolitan Area ...				2	...	2	3	4	11
TOTALS ...				79	43	54	59	108*	343

\* In six weeks (June 7th to July 18th) 483 cases were admitted "direct" from their own homes, but from which Parishes, &c., the returns do not show. Of the "admissions" in the fortnight ended September 26th, 35 were patients transferred from the "Atlas" to the "Castalia." It follows that 791 cases were admitted "direct" between June 7th and September 26th.

## SMALL-POX EPIDEMIC OF 1884.

TABLE K.

Shewing the Parishes and Unions from which Patients were admitted, at the six Hospitals in London, who were afterwards "transferred" to the Hospital Ships, in successive fortnightly periods. The Cases are enumerated in Tables C to H (and I) inclusive.

Unions and Single Parishes.		1884 Feb. 15	Feb. 29	Mar. 14	Mar. 28	April 11	April 25	May 9	May 23	June 6	June 20	Total.
Western District.	Kensington ...	...	...	...	...	...	...	...	...	...	6	6
	Fulham ...	...	...	...	...	...	...	...	...	...	...	...
	Paddington ...	...	...	...	...	...	...	2	2	2	6	12
	Chelsea ...	...	...	...	...	...	...	...	...	...	2	2
	St. George's, Hanover Square ...	...	...	...	...	...	...	1	...	...	1	2
	Westminster ...	...	...	...	...	...	...	...	...	...	...	...
Northern District.	St. Marylebone ...	...	...	...	...	...	...	3	2	6	11	22
	St. Pancras ...	...	...	2	2	1	3	4	6	4	10	32
	Hampstead ...	...	...	...	...	...	...	...	...	1	9	10
	Islington ...	...	4	5	6	10	13	20	10	6	13	20
	Hackney ...	18	13	16	45	44	31	101	64	162	121	615
Central District.	St. Giles and St. George ...	...	...	...	...	...	...	...	...	1	1	2
	Strand ...	...	...	...	...	...	...	1	...	...	2	3
	Holborn ...	...	2	4	2	2	1	5	6	8	23	73
	London, City of ...	...	1	1	...	1	1	1	3	4	1	13
Eastern District.	Shoreditch ...	1	3	3	16	10	10	34	26	31	39	173
	Bethnal Green ...	11	6	7	7	8	29	48	33	66	83	298
	Whitechapel ...	1	...	1	1	2	3	9	7	9	26	59
	St. George's - in the-East ...	...	...	...	...	3	1	10	14	18	30	76
	Stepney ...	...	2	3	2	3	1	5	6	9	12	63
	Mile End ...	...	...	1	2	...	4	19	23	35	46	130
	Poplar ...	...	3	2	4	2	...	3	10	1	9	25
Southern District.	St. Saviour's ...	...	...	...	...	...	...	...	...	...	5	5
	St. Olave's ...	...	...	...	...	...	...	...	...	...	7	7
	Lambeth ...	...	...	...	...	...	...	...	...	...	6	6
	Wandsworth and Clapham ...	...	...	...	...	...	...	...	...	...	3	3
	Camberwell ...	...	...	...	...	...	...	...	...	...	8	8
	Greenwich ...	...	...	...	...	...	...	...	...	...	1	1
	Woolwich ...	...	...	...	...	...	...	...	...	...	...	...
	Lewisham ...	...	...	...	...	1	...	...	...	...	...	1
		42	38	46	88	85	115	265	204	396	509*	1788

\* Of this number 48 were sent direct from their own homes, and 461 were transferred from other Hospitals.

THE EASTERN HOSPITAL (Table C).—On the Fridays which completed the successive fortnightly periods ending December 7th and 21st, 1883, and January 4th, 18th, and February 1st, 1884, there were remaining in the Eastern Hospital from 60 to 83 cases ; in the several fortnights 28, 33, 13, 27 and 35 cases were admitted, the fortnightly admissions from Hackney (population nearly 200,000), being 15, 22, 11, 20, and 12. There is therefore no evidence of any mischief having befallen the district at this time from the use of the hospital. On Friday, March 14th, the number in the hospital had fallen to 23, and the admissions in the fortnight March 1st—14th were 44, including 13 from Hackney. In the following fortnight, March 15th—28th, the great outbreak occurred which marked the commencement of the epidemic of 1884 : the admissions sprang up to 136, including 81 from Hackney. The subsequent progress of the epidemic in the eastern and northern districts, as shown by admissions at this hospital, and by admissions of cases from Hackney, Shoreditch, Bethnal Green, Islington, &c., at all the hospitals may be best studied in Tables C and I. The fall in the number of admissions after June 20th, when cases had begun to be removed direct from their own homes to the Hospital Ships, is very striking.

THE SOUTH-WESTERN HOSPITAL (Table D).—This hospital in December, 1883, contained fewer cases than the Eastern Hospital. On the alternate Fridays between December 7th, 1883, and February 1st, 1884, the patients remaining under treatment were 11, 20, 36, 36, and 25. The fortnightly admissions at the same dates were 9, 11, 17, 6, and 5. That no harm was befalling the district at this time is evident from the fact that the cases admitted from Lambeth, (population about 260,000), in the successive fortnightly periods were 1, 0, 3, 1, and 1. On Friday, March 14th, there were 12 patients in the hospital, and in the following four weeks, to April 11th, which covered the beginning of the great outbreak in the north and east districts, not one case was admitted from Lambeth : 22 cases were admitted from other parishes, including 11 from Islington, and 4 each from

Shoreditch and Holborn. In the fortnight ended April 25th, of 9 patients admitted 2 were from Lambeth, and of 37 admitted in the fortnight ended May 9th, 10 were from Lambeth, 6 from Wandsworth and Clapham, (adjacent parishes), 3 from St. Giles, 2 from Paddington, 6 from Chelsea, and 7 from St. George's, Hanover Square. The further admissions, and the fall in the number of cases admitted after the end of June, may be seen in Tables D and I.

THE SOUTH-EASTERN HOSPITAL (Table E) was the only other hospital in use in March, at the time of the outbreak at Hackney, &c. In the two fortnightly periods (January 19th—February 1st, and February 2nd—15th) Greenwich sent in 5 and 6 cases respectively. On March 14th, there were 13 cases remaining under treatment. In the critical fortnight (March 15th—28th), of 13 cases admitted 8 were from Hackney. In the fortnight, April 12th—25th, 12 cases were admitted, including 7 from St. Olave's, 2 from Camberwell, and 1 each from Greenwich and Woolwich. For later admissions and evidence of decline in July see Tables E and I.

THE NORTH-WESTERN HOSPITAL (Table F) was opened in May, and, therefore, not until after the critical (March 15th—28th) period. By May 23rd, 56 cases had been admitted—none of them from Hampstead: but 13 of them were from the adjacent parish of St. Pancras, 22 from Islington, 12 from Holborn, and 7 from Marylebone. At this time a few Hampstead cases were being removed to the Highgate Hospital (in St. Pancras parish). In the following fortnight, ended June 6th, Hampstead cases were admitted to the number of 6. For further admissions and evidence of decline in the number of admissions at and after the end of June see Tables F and I).

THE WESTERN HOSPITAL (Table G) was opened in May, and, therefore, not until after the critical (March) period. Small-pox was established in the Borough of Chelsea (in Kensington especially) before the hospital was opened. The hospital was

mainly used for the reception of the Borough cases. St. George's, Hanover Square, and Paddington contributed the largest number of cases among outside parishes.

THE PLAISTOW HOSPITAL (Table H) was opened at the end of May, mainly for the accommodation of patients from the Eastern districts. Reduction in the number of admissions here, as in the other hospitals, followed, at the end of June, upon the adoption of the system of "direct" removal of patients from their own homes to the ships.

THE HOSPITAL SHIPS received "transfer" cases, about 1,740 in number, from the London hospitals, between February 9th and the middle of June, when "direct" removals began. Between June and September 791 cases were so removed (see Table B). There is no complete record of the numbers removed from the several parishes and unions, but Hackney, Poplar, Bethnal Green, Islington, St. Pancras, Mile End Old Town, Shoreditch, and St. George's-in-the-East, were the largest contributors.

THE DARENTH CAMP, opened in April, received "transfer," and for the most part "convalescent," cases. In all some 4,000 patients—more than 1,000 at one time—were treated to complete recovery in 1884, in this great hut and tent hospital, with manifest advantage to London, and, so far as we know, with no ill effects upon the district in which the Managers estate is situated, (see Table A).

I have thought it might be useful to state, as above, the facts respecting admissions, &c., at each of the hospitals, but for my present purpose it will now suffice to confine attention mainly to the Eastern Hospital, in which, at the critical period, March 15th—28th, the cases under treatment were rather more numerous than at the South-Western and South-Eastern Hospitals, and in regard to which we shall see that the cases admitted and transferred, after the critical period, were vastly more numerous than at any other hospital. It is a question of great interest, whether the difference in numbers of patients admitted at the several hospitals,

prior to July, explains the widely varying incidence of the disease in the different districts, and the spread of small-pox in the northern and eastern districts up to that date, and the absence of spread in the South-Western and the South-Eastern districts at the critical period in March? And as the atmospheric conditions to which the outbreak in the North and the East districts was attributed must have prevailed in the South-Eastern and the South-Western districts also, in which districts, moreover, small-pox hospitals were in use, it becomes an interesting further question, whether any particular number of cases is necessary, in the same atmospheric conditions, to ensure spread of the disease in a hospital district? These questions, to which I do not profess to be able to give a decisive answer, will be considered in the following section of the report.

I pass on, therefore, to observe that the facts already stated (and tabulated in Table I) shew that there was no marked spread of small-pox in London in February; nor in March, save in the northern and eastern districts, as defined in the Tables published by the Asylums Board, and that the epidemic began in that month at Hackney and adjacent parishes. Of 52 cases admitted at the hospitals in the fortnight February 16th-29th, 44 were admitted at the Eastern Hospital: 21 came from Hackney; and 6, 4, and 5 from Bethnal Green, Poplar and Islington; so that these four parishes contributed 36 out of 52 total admissions. The same parishes and Shoreditch (7 cases) contributed 39 out of 52 cases admitted at the hospitals in the fortnight ended March 14th; 44 of the cases having been admitted at the Eastern Hospital. In the next fortnight, the critical period March 15th-28th, the admissions at the hospitals sprang up to 164 (136 at the Eastern Hospital), and 141 patients were admitted from the parishes above mentioned, including Hackney 89, Bethnal Green 16, Islington 18, and Shoreditch 18.

With fluctuations, well shewn in the Tables, the epidemic continued to increase until the middle of June, but, curiously enough, the admissions in the two fortnightly periods after March

28th, fell to 118 and 144 respectively. In the four succeeding fortnightly periods, the admissions at the hospitals were 352, 303, 573, and 635 respectively. The maximum, 635, was attained in the fortnight June 7th-20th, at which time the Asylums Board began, as before stated, to send "mild" cases to the Hospital Ships "direct" from their own homes. Previously, every case had first been removed to one of the land hospitals, and subsequently "transferred" to the Ships or to the Camp. In the fortnight June 7th-20th, 48 cases were sent direct to the ships, thus raising the total admissions to 683, and marking the culmination of the epidemic. In the previous fortnight, to June 6th, the admissions at the Eastern Hospital were 409, including 179 from Hackney, and in the fortnight ended June 20th, they fell to 319, including 132 from Hackney, irrespective of cases sent direct to the Ships. In the fortnight ended July 4th, the admissions at the Eastern Hospital were 87 only, (Hackney, 17), and so high a number had not again been reached by September 26th, at which date, as before said, the Asylums Board ceased to publish the usual fortnightly returns of admissions, &c. There was, as we have seen, a corresponding reduction in the number of cases admitted at the other hospitals from the parishes and unions districted to them. It has just been stated that 683 cases were admitted at the hospitals (including the ships) in the fortnight ended June 20th. In the succeeding fortnights the admissions were as follows :—

Two Weeks.		At the London Hospitals.	At the Ships.	Total Admissions.
To July 4th	...	276	257	533
„ 18th	...	162	178	340
To August 1st	...	104	79	183
„ 15th	...	133	43	176
„ 29th	...	63	54	117
To September 12th		88	59	147
„ 26th		99	73	172

[The progress of the epidemic between the end of October, 1883, and the end of September, 1884, may be best studied in the Tables, especially in Table I, which is a summary of Tables



C to H, inclusive. Tables A and B show at a glance the admissions at each hospital, and the cases remaining at each hospital at the end of the successive fortnightly periods, while Tables C to H show the parishes and unions from which patients were admitted at each of the hospitals, irrespective of those admitted direct at the Ships, viz., 791 between June and September. Table K shows the parishes and unions from which the cases "transferred" to the Ships between February and June had been originally removed to the several hospitals.]

Small-pox, as the Tables show, continued to be severely epidemic at Hackney, Islington, Shoreditch, and Bethnal Green, for many weeks, before there was any material spread to the Western, Central, and Southern districts. It appears, moreover, that out of 3,571 cases admitted at the London hospitals between November, 1883, and September, 1884, some 1,747 came from those four unions and parishes, this number being, of course, irrespective of home-treated cases, and also of cases removed, in and after June, "direct" to the Hospital Ships. During the same eleven months (November, 1883—September, 1884), the parishes comprised in the Borough of Chelsea (Kensington, Chelsea, Fulham and Hammersmith) sent 183 cases into the hospitals, 147 of them to the Western Hospital at Fulham; Lambeth sent 128 cases, all but 4 of them to the South-Western Hospital within its own boundaries; Camberwell 93, and Greenwich 85, all of them, practically, to the South-Eastern Hospital, which, adjacent to Camberwell, is situated in the Deptford section of the Greenwich district. St. Pancras, which contains the Highgate Hospital, sent 114 patients to hospitals, including 97 to the North-Western Hospital just outside its boundaries in Hampstead parish; Holborn sent 119 patients to hospitals, St. George's-in-the-East 107, and Mile End Old Town 179—there being no hospital in in these parishes; Poplar, Stepney, and Whitechapel, among Eastern parishes having no hospital within their boundaries, sent to the hospitals 108, 91, and 84 cases respectively. Marylebone sent 80 cases and Hampstead 60,—59 of them to the North-Western Hospital. These numbers it will be understood are irrespective

of cases sent "direct" to the Ship Hospitals (791 between June and September), and irrespective also of cases admitted at the Highgate Hospital, which was in active operation throughout the year, and contained more patients at any one time than any of the Asylums Board hospitals in London.

By way of conclusion it may be mentioned that the Asylums Board published in January, 1885, a Return, showing the admissions at the several Hospitals, from the 30 single parishes and unions, during the quarter ended December 31st, 1884. Table L (page 75) is based upon that return, and in it the names of the parishes in which hospitals are situated are printed in dark type. It must be remembered, however, that a hospital in one district may be so situated with regard to another district as to exercise an equal or even a greater influence on that other district. The South-Eastern Hospital, for instance, situated at Deptford in the Greenwich district, and among market gardens originally, lies just outside Camberwell, off the Old Kent Road, and at some distance from Greenwich proper; its influence for evil, whatever this may be, would be as marked upon Camberwell as upon Deptford or Greenwich. For this reason, therefore, the names of the parishes, &c., adjacent to hospitals are printed in italics, in Table L, in which, moreover, the population of the several districts at the Census of 1881 is given.

#### THE USE AND INFLUENCE OF HOSPITALS FOR INFECTIOUS DISEASES.

Under the above heading I have referred in my two last annual reports to the interesting questions raised in Mr. W. H. Power's well-known report on Fulham Hospital, viz., whether small-pox can be spread by aerial dissemination of infectious ("particulate") matter from small-pox Hospitals, and whether such dissemination is, as Mr. Power alleges, the cause of the admittedly excessive proportion of small-pox cases in the vicinity of the hospitals; as compared with other parts of the parishes in which the hospitals are situated? I say "other parts" of the

*same* parishes, because it is well known that there are districts in London remote from hospitals in which small-pox has prevailed to a greater extent than in any hospital district. The above questions were fully discussed by the Society of Medical Officers of Health recently, in connection with papers read by Dr. E. T. Wilson, of Cheltenham, a well-known sanitarian; Dr. Tripe, Medical Officer of Health for Hackney, in which parish Homerton ("Eastern") Hospital is situated; and by Dr. Gwynn, Medical Officer of Health for Hampstead, in which parish the "North-Western" Hospital is situated. Dr. Wilson, approaching the subject impartially, and from a purely scientific point of view, entertains grave doubts as to the correctness of Mr. Power's views. Dr. Tripe has practically accepted the aërial theory, and when Dr. Gwynn wrote his paper he was fully persuaded of the truth of that theory, but at the close of the discussion, he admitted, with equal courage and candour, that the charge against the hospitals, on the aërial dissemination theory, must be held to be "not proven."

The question, which may still be considered *sub judice*, is, whether the hospitals are the cause, *per se*, of the undue degree of prevalence of small-pox in their vicinity? and it will be interesting to learn what more Mr. Power has to say on the subject as the result of that further enquiry in regard to Fulham Hospital, which he has been conducting for the last twelve months. In any case it is to be desired that the question may be systematically and so thoroughly investigated as to enable a confident judgment to be arrived at, for if the theory of aërial dissemination, as broached by Mr. Power, does indeed furnish the true explanation of the greater incidence of small-pox, in the vicinity of hospitals, it will be difficult to justify the retention of hospitals for small-pox in London: unless, indeed, it can be shewn that the danger to the public health would be even greater under the system of home treatment, which was practically almost universal prior to the opening of the Asylums Board Hospitals, when, however, during many years, small-pox had not prevailed in a severely epidemic form in London. One point of interest seems to have been established, assuming the aërial theory to be true, viz., that,

as Dr. Gwynn puts it, "there is no special significance in numbers" as regards the danger to a district from a small-pox hospital in its midst, and a single case may be the cause of small-pox to susceptible persons within the "striking distance" of atmospherically carried *contagium*; a view which, if it be correct, would seem to place hospitals and private houses, where small-pox is treated, pretty much on a level. But whether the aerial theory be true or not, it is the fact that there was more small-pox in Hackney and Hampstead in 1884 than in previous years when the number of patients treated in the Eastern and North-Western Hospitals respectively was far greater. Notably was this the case in regard to Hampstead, for the patients under treatment in the North-Western Hospital, never more than 80 at one time in 1884, were not a tithe of the number treated at one time in the hospital during former epidemics, and yet the cases in the parish were more numerous than ever.\*

I do not propose, in the present report, to re-open this important question with a view to dealing with it exhaustively, but I shall venture to repeat the substance of the information which I laid before the Society of Medical Officers of Health, at the recent discussion, both with regard to the incidence of small-pox on the "special area" of the Western (Fulham) Hospital, and on the subject generally, as illustrated by the statistics published from time to time in the minutes of the Asylums Board.

The Western Hospital, it will be remembered, is situated outside the western boundary of Kensington, near the West Brompton Station. It lies between the Lillie Bridge Grounds (north), the London Athletic Club Grounds (south), open land in Fulham (west), and is separated from inhabited Kensington by the Brompton Cemetery on the east. The "Special Area" is represented by a circle with a radius of one mile, having the hospital for its centre; and, for convenience, Mr. Power divides it into a smaller central circle,

---

\* In proportion to population, St. George's-in-the-East had most cases of small-pox in 1884. There is no hospital in that Parish; but there is a hospital in the Parish (Hampstead) which followed St. George's in the proportional number of cases, and there is a hospital in the Union (Fulham) which had the smallest proportional number of cases.

(by some called the "bull's-eye") and three outer rings a quarter-of-a-mile in width. The whole of the "Special Area" is within the borough of Chelsea, which comprises the parishes of Chelsea, Fulham, Hammersmith, and Kensington, but Chelsea lies outside the inner or quarter-mile circle. The number of houses in this inner circle, in 1881, was 432, and the number in the several rings from within, outwards, was 3,488, 4,224, and 3,569, giving a total of 11,713 houses in the "Special Area" without distinction of parishes.

It has been already stated that 177 cases of small-pox were recorded in Kensington in 1884; 101 of them in South Kensington (population 85,000), which includes the whole of the Kensington portion of the "Special Area," in which there were 60 known cases of small-pox, as compared with 117 in the remainder of the parish. Of the 60 cases 10 were within the inner quarter mile circle, and 20, 10 and 20 in the three outer quarter-mile rings. Not knowing the number of houses or of inhabitants in the Kensington portion of the special area, and having insufficient information as to Chelsea and Fulham cases, I am unable to give per centages of cases to population; but as regards Kensington the cases were more numerous, relatively, in the special area than in other parts of the parish, and more numerous, (few as they were) in the inner circle than in the remainder of the special area. Especially will this be found to be the case if we take "per centages of houses newly invaded," after Mr. Power's method. There are about 170 streets in the Kensington part of the special area; the 60 cases occurred in 46 houses in 40 streets. In each of 35 streets one house only was invaded; in two streets two houses were invaded; in two streets three houses; and in one street four houses. In the remaining streets—130 in number—there was, so far as I know, no small-pox. Three cases occurred in Ifield Road—the street nearest to the hospital—at intervals of two and four months. This street is about 530 yards in length, contains 155 houses, and has a population of probably 1,500 to 2,000. In previous years, since the hospital was opened in 1877, Ifield Road had more cases of small-pox

than any other street in the parish; in 1881 there were 41 known cases in this street. Six cases (four in one house) occurred in three houses in as many streets in the St. Mark's (Fulham Road) *cul de sac*, a district well remembered in connection with the January, 1881, outbreak, (to be subsequently referred to), the three houses becoming invaded in June, October, and December respectively. In one street only in the special area were two houses invaded at the same time.\*

The year, for the purpose in hand, may be conveniently divided into two periods—(1) January 1st to May 31st, and (2) June 1st to December 31st. The hospital was reopened on May 17th, so that any influence it may have had on the surrounding district could not have come into operation until the beginning of June. Prior to June 1st, the hospital being closed, there had been 23 known cases of small-pox in the parish, of which two were in the special area. In the second period (June—December), the hospital being open, there were 154 cases, of which 58 were in the special area. Some particulars with regard to the cases have already been given in a previous section. (*Vide* page 30).

The cases occurred as follows, North Kensington lying to the north of the Uxbridge Road:—

PERIOD.	North Kensington.	South Kensington.	Total Cases.
January 1st to May 31st.....	13	10	23
June 1st to 14th (2 weeks).....	15	26	41
June 15th to July 12th (4 weeks).....	18	17	35
July 13th to August 9th (4 weeks) .....	3	2	5
August 10th to September 6th (4 weeks).....	2	—	2
September 7th to October 4th (4 weeks) .....	4	3	7
October 5th to November 1st (4 weeks) .....	5	2	7
November 2nd to 29th (4 weeks) .....	11	9	20
November 30th to January 3rd (5 weeks) ...	5	32	37
	<hr/> 76	<hr/> 101	<hr/> 177

\* I am indebted to my colleague, Mr. Collier, Medical Officer of Health for the Fulham District, for information in regard to small-pox in that district in 1884, as follows:—Cases recorded 105; of these 23 lived within half-a-mile (nine within a quarter mile) of the hospital, viz., 0, 6, 9, and 8 in the four quarters of the year, out of 1, 23, 33, and 48 cases recorded in the four quarters. Between May 17th and 31st nine persons were infected, of whom three lived more than a mile from the hospital, the others at 300, 400, 400, 440, 1,100, and 1,100 yards distant. There were a few cases in Chelsea in May—about seven—and about 13 in July, but the information forthcoming is not very precise, owing to the lamented decease of the late Medical Officer of Health, Dr. Barclay.

The disease was somewhat prevalent in the parish immediately before the Western Hospital was re-opened on May 17th. The epidemic, moreover, had been constantly increasing in severity in the eastern and northern districts of London, and gradually extending to the other districts, since the end of March. But there was a decided rise in the number of cases in Kensington immediately after the re-opening of the hospital, as shewn in the above table, for, to confine attention for the moment to South Kensington, there were 26 fresh cases recorded in the two weeks June 1st—14th. Of these 26 cases 18, “infected” on May 19th—21st, were “invaded” after the customary 18 days of incubation, on June 1st—3rd. The meteorological conditions of the three days, May 19th to 21st, were not altogether unlike those described by Mr. Power as having characterised the weather of January 18th—17th, 1881, when the patients were infected whose illness, a fortnight later, constituted the “notable outburst” in the special area, viz.: calm; wind easterly for the most part, and therefore blowing towards the Fulham District, but without any recorded “pressure,” the horizontal movement, moreover, being much below average. There was no ozone (at Greenwich), but mist and fog prevailed, especially on the first two days; no rain; degree of humidity 62 (complete saturation = 100), temperature  $54^{\circ}8$ , barometer 30.03 inches.

The facts of the remarkable outburst referred to, were as follows:—Fulham Hospital had been opened at the middle of December, 1880, and by January 8th, 1881, 32 acute and 110 convalescent cases had been admitted. Of the acute cases, four belonged to the Borough of Chelsea, which comprises the parishes of Chelsea and Kensington, and the Fulham Union; two came from within the special area, *i.e.*, from within a mile of the hospital. In the two weeks, January 9th—22nd, some 48 acute and 22 convalescent cases were admitted; seven of the acute cases were Borough cases, five belonging to the special area. No particular importance was attached to these local cases. But, says Mr. Power, “in the next succeeding fortnight (January 23rd—February 5th), a very unexpected event took place—a great outburst of small-

pox in Chelsea, Fulham, and Kensington. Fresh cases rose at a bound to 62," including 47 in the special area: 56 houses were newly invaded, the houses newly invaded in the special area being 41. Of the 62 cases, 42 were attacked on five days, January 26th—30th; 32 of them in the special area. In regard to 9 of these 32 cases, a reasonable explanation of their occurrence was forthcoming, but of the other 23 cases, "there was scarcely a hint to be got to account for their illness." The houses newly invaded in the next fortnight, February 6—19, were 28 only, (21 in the special area), or just half the number invaded in the antecedent fortnight, and nothing like the "notable outburst" of January 26th—30th subsequently occurred.

Compare with the January, 1881, outburst the above-mentioned outburst in June, 1884—the facts of which I am not able to give in all their completeness, but in due time, doubtless, they will be published by Mr. Power. The hospital was opened May 17th; two patients were admitted on that day. By the end of May, 11 Borough of Chelsea cases had been received, but none of these could have been infected by hospital cases, for at the dates of infection there were no cases in the hospital. Seven of the cases came from Kensington, 3 from Chelsea, (including 2 from the Kensal Town district, situated to the north of Kensington), and 1 only from Fulham. Prior to May 31st, the Kensington recorded cases in 1884, were 23—13 in North and 10 in South Kensington. Of the 13 cases in the North, 12, in 11 houses, occurred in May. Of the 10 cases in the South 3, in one house, occurred in May; the first of these 3 cases was not recognised, and the patient went about as usual all through her nominal "illness." But in the two weeks, June 1st—14th, a very unexpected event took place—a great outburst of small-pox in Chelsea, Fulham, and Kensington. Fresh cases rose at a bound to 52; 47 of them having been admitted into the hospital, and 5, in Kensington, having been treated at home. Chelsea contributed 8 cases, Fulham 11, and Kensington 33. Of the 52 cases, 26 (10, 8, 3, and 5) were infected on the four days, May 19th—22nd, and of these 26, 22, in 22 houses, were Kensington cases,



of whom 16 had resided within the special area, and 5 others between one and one and a half mile from the hospital. Of the 16 cases within the special area, 1 resided in the quarter-mile central circle, and 6, 6, and 3 in the three outer quarter-mile rings. The significance of the figures will be realised when it is remembered that out of 32 cases in the special area infected, January 12th—17th, 1881, only 12 belonged to Kensington, and that the admission of some 70 acute and 120 convalescent cases into the hospital previously had not, apparently, done any mischief in the district, whilst in June, 1884, no fewer than 16 cases in the Kensington part of the special area got infected in four days, although, on the last of the four infection days, only 5 cases in all had been admitted into the hospital, which stands on a site six acres in extent, and at a minimum distance of 300 yards from the nearest houses in Kensington. Time and space do not permit of further reference to this outburst, which appears to me to neutralise the inferences Mr. Power has drawn from the earlier outburst, for it can be shewn that the cases in June, 1884, are no more explicable than those which occurred in the special area in January, 1881, or than those in an equally "notable outburst" at the culmination of the epidemic in April, 1878, to which I referred in my evidence before the Royal Commission. I submit, however, that there is no reasonable ground for attributing the occurrence of the outburst in June, 1884, to any hospital influence: the epidemic wave appears to have spread from north to south, from east to west, as far as Kensington, and, subsequently to Chelsea and Fulham, where at a later date cases became relatively more numerous. Nothing like the June outburst occurred subsequently in 1884, and one can only say that if that outburst was due to aerial dissemination, as understood by Mr. Power, then small-pox might always be expected to spread in the vicinity of infected houses. It is worthy of passing notice that at a later period five persons in one family were stricken simultaneously and treated at home in a house situated at the corner of two streets in the Potteries district, Notting Dale; and that from another house, in a poor street at Notting Hill, seven persons

were removed to hospital at one time ; and yet there was no outburst of the disease in either locality, although the conditions for spread were about as favourable, in some respects, as could well be. But to resume :

We have seen that 22 persons in South Kensington were infected in four days : invasion dates, June 1st—4th. In the following 38 days, completing a period of six weeks, to July 12th, only 21 persons were invaded. In the succeeding four weeks, July 13th—August 9th, the new cases fell to two, while in the next four monthly periods, bringing us down to November 1st, the new cases were 0, 3, 2 and 9, respectively, the hospital having been open continuously. All this time the cases occurring in North Kensington were few in number, as may be seen on reference to the table (page 65).

At the end of the year, in a period of eight weeks, 41 cases were recorded in South Kensington, 3, 3, 3, 8, 7, 7, 4 and 6 in the consecutive weeks. The maximum number of patients in the hospital during this period, at the end of any week, was 18 : 18 was the largest number of new cases admitted in any week, and not more than 13 "transfers" to other hospitals were made in any week. It may be said, therefore, that, even at this period, there was no excessive quantity of small-pox in South Kensington (population 85,000), and no excessive number of patients in the Western Hospital. Moreover, as the admissions and the transfers were few, there was no excessive quantity of small-pox traffic in the district around the hospital. The hospital operations were mainly restricted to Borough of Chelsea cases, for only 90 cases from other parishes were admitted in 1884. The re-opening of the hospital was, in fact, necessitated by the extension of small-pox from the East end to the parishes constituting the borough, first of all, and notably, to Kensington. The admissions never exceeded 46 in a fortnight, and they fell off considerably when, at the latter end of June, the plan of sending "mild" cases to the Hospital Ships direct from their own homes was brought into operation.

In a previous section (page 43) I have referred to the epidemic as it affected the Metropolis in 1884. We have seen that it

commenced in March, simultaneously, at Hackney, where at Homerton the Eastern Hospital is situated, and in the adjacent parishes of Islington, Bethnal Green and Shoreditch. The Tables C to I shew the incidence of Small-pox in every district in London for the greater part of the year, as indicated by the admissions at hospitals; they shew also that Small-pox had lingered in Hackney through the winter of 1883-4, and that nowhere else was the epidemic so severe as in that parish. Dr. Tripe accounts for the sudden outburst at Hackney and other parishes, in March, on a theory of "eddis" in the air. These eddis, he believes, whisked the *contagium* out at the hospital windows—with what results we know. He has shewn that the eddis were recorded at Greenwich and at Kew also. Their influence, therefore, must have operated at Deptford and Stockwell where hospitals were in use; but, as we have seen, they did not cause any spread of Small-pox in those localities. From Hackney and the other parishes above named Small-pox spread, until every part of the Metropolis had become invaded. In Hackney alone, some 1,200 cases were recorded in 1884, and of this number, 250, to say nothing of concealed and unrecognized cases, were treated at home. What influence these 250 cases may have had on the spread and the continuance of the epidemic, locally, may be inferred from the fact that on a former occasion an outbreak involving the occurrence of 52 cases was traced by Dr. Tripe to one home-treated case. This outbreak was finally suppressed owing to the facilities afforded by the Eastern Hospital for the isolation of the sick.

Between the end of October, 1883, and the end of September, 1884, (a period of eleven months), 4,361 cases were treated in the Asylum Board's Hospitals; 791 of the cases were admitted direct at the Hospital Ships, and 3,570 were admitted in the first instance at the Hospitals in London. Of these 3,570 cases, no fewer than 2,107 were admitted at the Eastern Hospital, as against 1,463 admitted at the other hospitals, five in number. The great bulk of the 2,107 cases were transferred from the Eastern Hospital to the Ships or to the Darent Camp, at an early period, and while still infective. The Eastern, the South-Western

and the South-Eastern Hospitals were in use in March at the time of this outbreak in the Eastern and Northern Districts. The prevalence and rapid extension of Small-pox in those districts, as before stated, necessitated the opening of the Hospital Ships in February, of the Darenth Camp in April, and of the North - Western Hospital, the Western Hospital, and the Plaistow Hospital, in May, these hospitals having been opened to meet the requirements of the other districts of the Metropolis west and south, as the epidemic spread to them from the east and the north.

In June a momentous step was taken by the Managers, who determined thenceforth to send "mild" cases to the Hospital Ships direct from their own homes. Previous to this, in four successive fortnightly periods, beginning April 26 and ending June 20; 285, 219, 409 and 319 cases had been admitted at the Eastern Hospital, and in the same four fortnightly periods 267, 194, 382, and 281 cases were transferred from that Hospital to the Ships and the Darenth Camp. Thus 552 cases of Small-pox had traversed the district, entering or leaving the Hospital, in the two weeks ending May 9; the number in the following fortnight being 413. In the fortnight ended June 6, the small-pox traffic culminated, no fewer than 791 infective persons having entered or left the hospital. In the following fortnight ended June 20, (the system of direct removal having come partially into operation) the number of entering or leaving patients fell to 600. From this date an active system of removal of cases direct to the Hospital Ships began, and in the fortnight ended July 4, no fewer than 257 patients were so removed. Observe what followed. In the fortnight ended June 6, 180 cases had been admitted at the Eastern Hospital from Hackney, and in the fortnight ended June 20, 132 Hackney cases were admitted, in addition to many Hackney cases sent direct to the Ships; but in the fortnight ended July 4 this Hospital admitted only 17 Hackney cases, and 87 cases in all. In the same fortnight the combined admissions and transfers were 155 only, scarcely more than a fourth of the number in the preceding fortnight, and less than a fifth

of the number in the penultimate fortnight. In the succeeding fortnight, ending July 18, the admissions were 51 and the transfers were 51; total 102; and, not to enter into minute details, it will suffice to say that in the following ten weeks, to the end of September, when information ceased to be published, the fortnightly combined admissions and transfers were 40, 44, 88, 27 and 14. The cases of Small-pox from Hackney, admitted at all the Hospitals in 14 weeks, to the end of September, fell to 65, as against 665 in the previous 14 weeks (*vide* Table I), when all cases were admitted at the Hospitals before any were transferred to the Ships.

The question which will naturally be asked is, Whether the instant and decisive reduction in the number of cases after the middle of June was a coincidence merely, consequent on the decline of the epidemic generally, or a result of the new arrangement by which patients were admitted direct at the Hospital Ships from their own homes without having been taken through the streets converging upon the Eastern Hospital? That there was not such a decline of the epidemic as would account for so remarkable a falling off in the number of Hackney cases immediately after the system of direct removals began to come into operation, may be inferred from the following figures, shewing the number of patients in the hospitals, and the number of new cases admitted into the hospitals, in four weeks before, and four weeks after, June 21st:—

Period Week ending.		Cases at all the Hospitals.		New Cases admitted.		Hackney Cases in fortnight.
May 30th ...	...	1,057	...	370	...	—
June 6th ...	...	1,096	...	155	...	180
„ 13th ...	...	1,238	...	332	...	—
„ 20th ...	...	1,316	...	354	...	132
„ 27th ...	...	1,290	...	260	...	—
July 4th ...	...	1,368	...	266	...	17*
„ 11th ...	...	1,242	...	179	...	—
„ 18th ...	...	1,152	...	141	...	10*

\* No record has been kept of the parishes and unions from which cases of small-pox were admitted direct at the Hospital Ships in the first six weeks (June 6th—July 18th). In the successive fortnightly periods ended June 20th, July 4th, and July 18th respectively, 48, 257, and 178 cases were admitted—many of them doubtless from Hackney.

Past experience possibly may help us to an answer to the question just propounded. In the early months of 1881 small-pox was rampant in London, the hospitals were full and many cases had to be treated at home for want of room. At about the middle of May pressure was relieved by the opening of the Darenth Convalescent Camp Hospital; but the hospitals in town, which contained about 1,000 beds, were kept filled with new cases as fast as recovering cases (called "convalescents") could be transferred to the Camp. All cases in that year were first sent to a hospital in London, and transferred, when convalescent, to the Camp or to the Ships. There was thus a great amount of movement of small-pox cases in the vicinity of the hospitals after Darenth was opened, with the result that the epidemic continued to increase for several weeks, there having been no sensible reduction in the number of cases admitted into hospitals until the end of June. The effect of the system of "direct" removal of cases to the Hospital Ships, initiated in June, 1884, was to diminish largely the amount of convergent and divergent small-pox traffic in the vicinity of the land hospitals—with what results in regard to small-pox prevalence at Hackney has already been shown. Similar results followed in other districts on the commencement of the system of direct removals, but no other hospital had approached the Eastern in the number of cases admitted. It need hardly be said that small-pox traffic increases indefinitely the opportunities for infection, and it is more than probable that it is the explanation of the spread of small-pox in the vicinity of hospitals, and of the continuance of epidemic small-pox in London. We know that when opportunities for contact by personal communication are reduced to a minimum, as in cases to be referred to of public institutions under efficient control, then small-pox does not prevail, even when such institutions are well within the (supposed) "striking distance" of the small-pox poison. It may be said generally that if you can stop personal communication you will stop the spread of small-pox.

The Asylums Board have published a return of cases admitted at the hospitals during the quarter ended December 31st, 1884,

to the number of 2,186 (Table L, page 75), and in that return there is no evidence of excessive prevalence of small-pox in the parishes in which hospitals are situated. On the contrary, the disease was far more prevalent in parishes which contain no hospital, than in parishes situated within the "special area" of hospitals. It is impossible, however, for any one but the local Medical Officer of Health to say whether the proportion of cases in the immediate vicinity of a hospital is excessive as compared with other parts of the district. If it is excessive near the hospital, and not elsewhere in the same parish, the fact would seem to show that small-pox traffic is in some way the cause of small-pox spread. I do not mean to say or to suggest that the disease is spread by the patients in the ambulances, though spread in that way is possible, and even probable, on the "short diffusion" theory, but simply to point to the desirability of limiting as much as possible the concentration of small-pox traffic in the vicinity of hospitals on the ground that the thicker the line of such traffic in any district is, the greater the danger will there be of the spread of disease in that district.\*

Dr. Bristowe, Medical Officer of Health for Camberwell, has on more than one occasion reported an excess of small-pox in the vicinity of the South-Eastern Hospital (at Deptford), which may well be due to small-pox traffic, as "Ward No. 4," where the disease prevails most, is traversed by the Old Kent Road, by which access to the hospital is obtained from all parts.

---

\* Taking the figures in the above-mentioned return in the gross it appears that in the "East District"—population roughly 700,000—there were the most cases, viz., 845 out of the total of 2,186. There is no hospital in any of the parishes comprised in this district. In the North District the cases were 579 only in a population of about 900,000, there being in this district three hospitals, the "Highgate," the "North-Western," and the "Eastern," situated in the parishes of St. Pancras, Hampstead, and Hackney. St. Pancras, Hampstead, and Hackney contributed 182, 56, and 147 cases respectively; Marylebone, 40; and Islington, 154. The 1,265,000 population of the South District sent in 408 patients, including Camberwell, 58; Greenwich, 89; Lambeth, 72; St. Olave, 34; and St. Saviour, 92. The South-Western Hospital is situated in Lambeth, near Clapham. The West District, population 670,000, sent in 189 patients (less than a fourth of the number from the East District), of which number the parishes of Kensington and Chelsea, and the Fulham Union, comprising the Borough of Chelsea, contributed 55, 27, and 35 patients respectively (total 117), and Paddington, St. George's, Hanover Square, and Westminster (combined), 72. The Western Hospital is at Fulham, near Kensington and Chelsea. The Central District, with a population of less than 300,000 and no hospital, sent in 165 patients, including 93 from Holborn. The figures are set out in detail in Table L.

**TABLE L.**

Shewing the admissions of Small-Pox Patients at the several Hospitals for the quarter ended the 31st December, 1884, together with the Population at Census of 1881 of the several Parishes, Unions, &c.

PARISHES, UNIONS, &c.				Cases admitted	Totals.	Population, 1881.	
Western District.	<i>Kensington</i> ... ..			55	189	163,251	669,633
	<b>Fulham</b> ... ..			<b>35</b>		114,839	
	Paddington ... ..			22		107,218	
	<i>Chelsea</i> ... ..			27		88,128	
	St. George's ... ..			37		149,748	
	Westminster ... ..			13		46,549	
Northern District.	St. Marylebone ... ..			40	579	154,910	905,947
	<b>St. Pancras</b> ... ..			<b>182</b>		236,258	
	<b>Hampstead</b> ... ..			<b>56</b>		45,452	
	Islington ... ..			154		282,865	
	<b>Hackney</b> ... ..			<b>147</b>		186,462	
Central District.	St. Giles and St. George			37	165	45,382	282,238
	Strand ... ..			13		33,582	
	Holborn ... ..			93		151,835	
	London, City of ... ..			22		57,439	
Eastern District.	Shoreditch ... ..			138	845	126,591	692,438
	Bethnal Green ... ..			165		126,961	
	Whitechapel ... ..			43		71,363	
	St. George's-in-the-East			94		47,157	
	Stepney ... ..			59		58,243	
	Mile End Old Town ... ..			129		105,613	
	Poplar ... ..			217		156,510	
Southern District.	St. Saviour's ... ..			92	408	195,164	1,265,937
	St. Olave's ... ..			34		134,632	
	<b>Lambeth</b> ... ..			<b>72</b>		253,699	
	Wandsworth and Clapham			31		210,434	
	<b>Camberwell</b> ... ..			<b>58</b>		186,593	
	<b>Greenwich</b> ... ..			<b>89</b>		131,233	
	Woolwich ... ..			30		80,845	
	Lewisham ... ..			2		73,337	
					408		1,265,937
					2,186		3,816,193



Dr. Gwynn, Medical Officer of Health for Hampstead, in like manner has testified to the prevalence of small-pox in the streets by which the North-Western Hospital is approached. He has noticed however, comparative freedom from the disease in a portion of his district near to the hospital, but off the line of small-pox traffic.

Dr. Walter Verdon, Medical Officer of Health for Lambeth, while admitting the greater prevalence of small-pox in the vicinity of the South-Western Hospital at Stockwell, as compared with other parts of the parish, has referred to one portion of the district near to the hospital, but off the line of traffic, where there has been little small-pox. "The railway line running from Brixton to Clapham" (he writes) "lies south of the hospital, and bisects both the half and quarter mile radius. There is no direct means of transit between the north and south sides of this line, between the two points where it bisects the quarter-mile radius, and a greater part of the south section of the half-mile area is also cut off from any direct communication with the hospital approaches, by this line of railway. The lines of sewage are divided as well as the roads. Now, in this area, so cut off from the hospital, during the whole of the epidemic in 1884 only three cases occurred. I think this point is one of great interest, as this line of rails is not many feet above the level of the surrounding ground, where it bisects the quarter mile area; and we find on the one side 49 cases, and on the other side of this line only one case within this area. I think it is a fair inference that the want of continuity of road and sewer communication may have some part in the unequal distribution of the disease, as this barrier could scarcely interfere with the dissemination of the disease through the air."

Dr. Bristowe, it may be mentioned, has not felt certain that the spread of small-pox in Camberwell may not be in some measure connected with the sewerage of the Ward chiefly affected by the disease. There does not, however, appear to be much evidence connecting the spread of small-pox with drainage arrangements.

The freedom from small-pox of the City of London Infirmary, at Bow, adjacent to the Eastern Hospital, is a well known fact

difficult of explanation by those who support the aërial dissemination theory. There are other public institutions in the same (Hackney) district, which appear to have enjoyed a similar practical immunity from small-pox, although within what would be called "striking distance" of the *contagium* generated by the sick in the hospital. Instances of this kind, moreover, are not confined to London, for, as the result of inquiries instituted by the Society of Medical Officers of Health, in connection with the discussion on Small-pox Hospitals above referred to, Dr. Alfred Hill (Birmingham), Mr. Armstrong (Newcastle-on-Tyne), Dr. Vacher (Birkenhead), Dr. Davies (Bristol), and others, referred to examples of immunity from small-pox, in the case of public institutions, in circumstances where there should have been no immunity could the *contagium* leap over walls or enter at windows at the distances to which, according to the "long diffusionists," the disease may be spread.

There was a very general consensus of opinion among medical officers and others, who took part in the discussion, that the so-called "convalescent" stage of small-pox is as infectious as the "acute" stage; a point of some importance, Mr. Power having expressed a different view, contending, as the facts in regard to his inquiry with respect to the Fulham Hospital seem both to warrant and to require, that there was no evidence of the spread of small-pox by aërial dissemination of *contagium*, so long as only convalescent cases were under treatment at that hospital. But if the views expressed by the different speakers, which will be found in the Society's Transactions for the Session 1884-5, in regard to the infectiousness of the convalescent stage, are well founded, a greater difficulty than ever will have been interposed to the acceptance of Mr. Power's attractive theory.

The discussion led to no definite conclusion, ascertained by vote, but the balance of opinion was adverse to the hypothesis of *distal aërial infection*, and it was felt that the indictment against the hospitals, based on that theory, had not been sustained. For my own part, I am still in the position of being unable to accept Mr. Power's views, and am still of opinion that the "graduated

intensity" of small-pox prevalence in the vicinity of the hospitals is susceptible of a different explanation, and will, probably, be explained ultimately, as Mr. Power admits that it may be explained, on the hypothesis of personal communication occurring outside the walls of the hospitals. Assuming the probability of such an explanation of an admitted fact, it may be said that a grave responsibility attaches to all who are in any way connected with the administration of the hospitals, and it becomes above all a vital question, whether such spread, if so caused, is, or is not wholly or in part preventible? This question is too large to be entered upon at the present time, but the ground for a consideration of it will have been cleared could we be satisfied that the theory of aërial dissemination, in the sense of Mr. Power's report, is, as I think it is, untenable. But whether the spread of small-pox in the vicinity of hospitals is due to aërial dissemination of *contagium* or to personal communication, it must be obvious that to increase the number of such institutions in London, as some have proposed, by the establishment of a large number of local or district hospitals, would be to multiply possible centres of infection, and to increase rather than to diminish a public danger.

## HOSPITALS COMMISSION.

In previous Reports (1882, pages 28-43; 1883, pages 31-36) I have referred to the recommendations of the Royal Commission for making provision of Hospital Accommodation for the infectious sick, and generally for dealing with epidemic diseases in the Metropolis. I propose now to state what has been done with a view to give effect to the recommendations of the Commission, which have been loyally carried out by the Managers of the Asylums Board; and first with regard to

**SMALL-POX HOSPITAL ACCOMMODATION.**—The Commission recommended that provision should be made for the reception and treatment of small-pox patients in isolated positions on the banks of the Thames, or in floating hospitals on the river itself. The

Managers have done all this. In addition to the *Atlas* and the *Endymion*, they have purchased and converted the twin-ship *Castalia*. These vessels are moored off Long Reach, opposite a piece of land, about eight acres in extent, on which laundry, mortuary, and other administrative conveniences have been provided. The Ship-Hospital *Atlas*, and her tender the *Endymion*, were lent to the Managers by the Admiralty originally, but they have now (June) been acquired by the Managers at "breaking-up price," viz., £8,400 for the *Atlas*, and £6,500 for the *Endymion*. The *Atlas* accommodates 200 patients, and the *Castalia* about as many. I have referred already to the services rendered to the Metropolis by the Managers by the removal of numerous cases direct from their own homes to the Ships which now receive the bulk of the small-pox patients and are Hospitals. These hospitals have been the principal feeders of the

DARENTH CONVALESCENT CAMP HOSPITAL, to which great numbers of convalescent cases have been transferred. At the present time the Camp is what its name signifies, a collection of huts and tents, but it is proposed to build a permanent hospital on the site (about 135 acres in extent), a step which would have been taken some time since, but that the Managers felt unable to move in the matter, beyond the preparation of plans and estimates, until the important cause

FLEET AND OTHERS *v.* THE MANAGERS had been brought to an issue. This cause, decided in favour of the defendants, by Mr. Justice Pearson, in November last, after a hearing extending over a period of six days, was an action brought by an owner of land at Darenth adjoining the property of the Managers, the two estates being separated by a public roadway only. Mr. Fleet's application was for an injunction to restrain the defendants from maintaining the Camp and from collecting or keeping small-pox patients on the site of the said Camp, or otherwise at Darenth, in such manner as to create a nuisance or otherwise damage the plaintiffs,\* or any of them, or the property owned

---

\* The other plaintiffs, it may be mentioned, were tenants of Mr. Fleet, joined with him after the action had been commenced and exempted by him from any pecuniary responsibility.

or occupied by them, or any of them. It had been alleged, on behalf of the plaintiffs, that the erection of a small-pox hospital of the size of that at Darenth was certain to occasion danger of small-pox in the neighbourhood, and that such danger had been occasioned; also that that danger amounted to an actionable nuisance, and the plaintiffs therefore applied to the Court to have the continuance of that nuisance restrained. Mr. Justice Pearson in giving judgment said that he should follow the ruling of Lord Chief Justice Cockburn, who, in reference to the Hampstead case, said the jury must determine "whether the presence of the hospital created a real danger to health with reference to the adjacent properties owned by the plaintiffs in that action," and the question therefore which he had to decide was "whether the healthiness of the plaintiffs' property had been appreciably diminished by the placing in the vicinity of it the camp hospital with all its patients?" Evidence in regard to the hospitals in London was placed before the Court by the plaintiffs, but, as the Judge observed, "the difference between the cases was so great that the only use of the evidence was to enable one, by finding what facts had been proved with regard to those hospitals, to see whether the facts could be applied, and to what extent they ought to be applied, to the case brought before the Court for adjudication." His Lordship said he was unable to come to the conclusion that "not only was it possible that the poison of small-pox might be conveyed through the air, but that it was so probable that it would be conveyed through the air, for a distance from the camp to the plaintiffs' property," that he must decide that "the situation of the camp where it was was an appreciable cause of unhealthiness to the plaintiffs' property." As regarded similarity of position there was "no parallel at all between the London hospitals and the Convalescent Hospital at Darenth; the same conclusions, therefore, that were drawn from the existence of the hospitals in London could not be drawn from the existence of the Camp at Darenth." The plaintiff, who was "bound to prove his case" to the Judge, had "failed to prove his case; it was not proved that there was any danger whatever from this hospital to Mr. Fleet or his property," and therefore his Lord-

ship was "bound to dismiss the action." Referring to the conduct of the hospital his Lordship said, in concluding an elaborate judgment, "I sincerely hope that an enterprise which has been conducted with so much courage, so much care, and so much skill by the Managers of the Metropolitan Asylums Board, may continue to have the success which it has had hitherto."

However much we may sympathise with the plaintiff in regard to the annoyance to which he is exposed by the propinquity of such an unpleasant neighbour, we cannot but be thankful, for the sake of the metropolis, that the action was dismissed. It is impossible to imagine what disastrous results might have accrued had the action been successful. Cases of small-pox can be admitted at the London hospitals; the Ships are totally inadequate for the reception of the patients who need to be removed to hospital for the sake of isolation, so that reliance must be placed on the elastic powers of the Camp to accommodate whatever cases are fit for removal to the huts and tents. The importance of the Camp may be estimated by the fact that, between April and December last year, it received more than 4,000 cases, and provided for more than a thousand patients at one time. During the first five months of the year all the sufferers were admitted into a London hospital before being transferred to the Ships *en route* to the Camp. In June the plan of admitting patients direct from their homes into the Ships was, as I have said, first instituted, and between that date and the end of the year about 2,000 cases were so admitted, irrespective of more than 3,000 cases transferred from London hospitals, as many as 862 patients having been admitted in one month (June). It must be apparent that the Ships could not have dealt with a tithe of the cases that have passed through them had it not been for the formation of the Camp, which appears to have been a complete and unqualified medical success.

The litigation having thus terminated in the Managers' favour, they will carry out their intention to erect at Darent a

PERMANENT SMALL-POX HOSPITAL, mainly for convalescent cases, a course which has been rendered necessary by the restric-

tions imposed on their action by the compromises in regard to the North-Western and Western hospitals, and by the recommendation of the Royal Commission that not more than 30 to 40 small-pox cases should be treated at any one time in a hospital within the metropolitan area. During the epidemic of 1881, the Managers had accommodation at their disposal in the metropolis for 1,000 small-pox cases, and the Camp Hospital at Darenth provided for about 650 cases; 1,650 beds in all—the maximum number occupied at any one time in the course of that not very extraordinary epidemic. The Managers, as at present situated, and apart from the Camp, possess accommodation for 650 cases only, viz., 250 beds in hospitals on land, 50 in each of the five existing hospitals, a maximum of which they would be reluctant to avail themselves, and about 400 on shipboard, so that without the Camp there would be a deficiency to the extent of at least 1,000 beds in the event of an average epidemic.

To supply this deficiency, the Managers propose, with the sanction of the Local Government Board, to erect at Darenth a hospital for 1,000 patients in ten groups of buildings, each to afford accommodation for 100. Six only of the groups are to be erected in the first instance, but with all the administrative buildings necessary for the complete hospital. Each of the groups will be sub-divided into four wards of 25 beds each, with a day room, &c., and infirmary accommodation will be provided for 60 patients in two large wards of 24 beds each, and two small wards, or isolation rooms, of six beds each, for the treatment of cases of erysipelas or other complications occasionally attendant upon small-pox.

Even with this large addition to the Managers' resources, the permanent provision of hospital accommodation for small-pox falls short of the requirements of the metropolis, as estimated by the Royal Commission on Hospitals, who were of opinion that there should be sites and buildings which could without difficulty be made capable of receiving 2,100, or by special exertion 2,700, small-pox patients. The sites are adequate in mere acreage, as on the land at Darenth any necessary number of tents could be pitched on an emergency; but the Local Government Board have

judiciously suggested for the consideration of the Managers the desirability of an endeavour being made to secure an additional site, to the west or south-west of the metropolis, which would be available for an additional hospital for convalescent small-pox patients, in view of the probable exigencies of a serious epidemic, and taking into account the requirements of London as a whole.

FEVER HOSPITAL ACCOMMODATION.—The Royal Commission recommended that there should be sites and buildings which could be made capable of receiving 3,000 fever patients. “Of the 3,000 cases those in the earlier stages, probably about half, should be provided for in the near neighbourhood of London; the other half—the convalescents—in two or three country hospitals.” The beds now available for treatment of fever cases at the five existing hospitals are about 936, the recommendation of the Commission, that these hospitals should “become in the main fever hospitals,” having been carried into effect. These hospitals, the Commission thought it probable, would, “with the aid of another hospital which appears to be indispensable for the east of London, . . . fully accommodate all the cases requiring London treatment.”

The Managers resolved, in the first instance, to give effect to the recommendation to provide another hospital for the east of London, and the sanction of the Local Government Board was accorded to the proposal, but the Managers afterwards rescinded the resolution, and, with the approval of the Board, they have acquired about 36 acres of land, known as the Chaseville Park Estate, at Winchmore Hill, nine miles north-east from Charing Cross, on which they are at the present time erecting a hospital, mainly for convalescing and convalescent fever cases; but they have not pledged themselves to exclude acute cases, should the London accommodation prove inadequate at any time. Whether the Metropolis will be sufficiently provided with accommodation for acute cases without an additional hospital, time only can show; but there can be no doubt as to the need of a country retreat for convalescents, such as the “Northern Hospital” will supply. This hospital has been designed to provide for about 500 patients



in buildings similar to those to be erected for convalescent small-pox patients at Darent; but, unlike Darent, it is intended to be in permanent occupation, and it is expected to relieve the pressure upon the other hospitals north of the Thames. It is probable that the Managers will ultimately decide upon purchasing a site for convalescing fever patients south of the river, so as to carry out the recommendations of the Hospitals Commission, as it is obviously necessary, if we are to be prepared against all emergencies, that there should be hospitals, or, at the least, sites on which to make temporary provision for patients in the acute, and in the convalescent, stages, and so situated, moreover, as to be accessible from all parts of the Metropolis north and south of the Thames.

**AMBULANCE SERVICE.**—The Hospitals Commission recommended “that the hospital authorities should have the entire control of the ambulances, by which all other modes of conveyance should be as far as possible superseded.” In order to give effect to this recommendation, the Managers have provided ambulance stations at three of their London hospitals, powers for this purpose having been conferred on them by section 16 of the Poor Law Act, 1879. The Station in connection with the Western Hospital, with which we are more immediately concerned, is now in active operation. It provides stabling for 15 horses, coach-house for 15 ambulances, together with all necessary accommodation for drivers, nurses, &c., on a site 220 feet by 76 feet. Between 8 a.m. and 8 p.m. on week days cases are reported by telegraph at the Managers’ offices at Norfolk Street, Strand, these being in telephonic communication with the Station, whence an ambulance, with a nurse in attendance, is sent to remove the patient to a land hospital or to a wharf, *en route* to a Ship Hospital, as the case may be. After 8 p.m., and on Sunday, the application for removal of a patient is forwarded direct to the Ambulance Station. In view of the importance of speedy removal, I suggested to the Guardians in this parish the desirability of placing their offices in telephonic communication with the offices of the Managers, and this they agreed to do, but difficulties have prevented, as yet, the carrying out of the arrangement. Subsequently to the above suggestion, the Managers

invited the several Boards of Guardians in the Metropolis to connect their offices with those of the Board. As the outlay would be £20 per annum only, and would carry the privilege of giving any assenting Board the means of communicating with all telephonic subscribers, the terms may be considered reasonable.

AMBULANCE STEAMERS.—The *Red Cross*, specially constructed for the conveyance of small-pox patients to the Ship Hospitals and to the Camp, has been supplemented by a second and larger vessel named the *Maltese Cross*, and by a river steamer the *Albert Victor*, which has been converted for the purpose.

“Mild” cases of small-pox, as already mentioned, are sent direct to the Hospital Ships, and sometimes it has happened that a mild case has been reported too late in the day to enable the removal of the patient to be effected in time for the last departure of the Ambulance Steamer from the several wharves, the result being that the patient’s removal has had to be postponed until the following day. I ventured to call the attention of the Managers to this subject in December, at which date the *Red Cross* left the wharf at 6 p.m. I proposed a later departure, which, I thought might have been made feasible with the aid of the electric light. The Managers, with their usual promptitude in acting upon any suggestion calculated to promote the efficiency of their work, at once arranged that the last departure of the ambulance steamer should take place at 9 p.m., which had the desired “effect of considerably diminishing the number of mild cases left in their homes till the day following the application for removal.” I am of opinion that it would be well to admit “mild” cases to the Managers’ London hospitals, if only for a single night, rather than to allow the patient to remain at home for even so short a period after application for removal, but the Managers’ regulations do not allow of “mild” cases being admitted at the land hospitals. In this respect I think the regulations might be amended with advantage.\*

The ambulance service of London is now practically in the

---

\* In July (1885), the Managers intimated their desire to remove all cases to the Ships direct, when such removal would not be dangerous to life, nor prejudice the patient’s chance of recovery.

hands of the Asylums Board. There are few private ambulances, and if, for example, a patient suffering with small-pox desires to be removed to the Highgate Hospital, or if a patient suffering with diphtheria, or enteric fever, desires to be removed to a general hospital, there is great difficulty in obtaining means of carriage. I represented these facts to the Asylums Board in December, and submitted for their consideration "whether it would not be practicable to place disengaged ambulances at the service of the medical profession and of Medical Officers of Health, for the conveyance of such cases either with or without payment?" The cases, I said, were "few, and this is the cause of the difficulty, for if the cases were numerous, demand would create supply, ambulances would be provided," and the difficulty would cease. The Managers, in their reply, stated that they "are not yet in a position to undertake the removal of any cases of infectious disease beyond those which are to be received into Hospitals under" their own control. I do not doubt but that the Managers will, in course of time, recognize the desirableness, and I may say, the propriety, of doing what I suggested.

WHARVES.—By section 6 of the Diseases Prevention (Metropolis) Act, 1883, the Managers were empowered to obtain land, with approaches, &c., for three wharves or landing places within the metropolis and one beyond the metropolis, to facilitate the conveyance of the sick to land or ship hospitals down the river. Effect has been given to this enactment by purchases of land as follows:—A site at Rotherhithe ("Acorn Wharf"), for the service of the southern districts of the metropolis; a site at Blackwall (Brown's Wharf), for the service of the north-east district; and a site near Wandsworth Bridge ("Sullivan's Wharf"), to serve as a transfer depôt for the use of the western districts, including Kensington. These wharves are in future to be designated "South Wharf," "North Wharf," and "West Wharf." The land at Long Reach, off which the hospital ships are moored, is the fourth, or extra-metropolitan, site. At each wharf a pier has been, or will be, erected, from alongside which patients will be taken from the land ambulances to the steamers, and at which convales-

cents will disembark on their return home from the Ship Hospitals or the Camp. Under the arrangements matured by the Managers, the treatment of a small-pox patient may be said to commence at the moment of removal, for he is taken charge of at the bedside by a skilled nurse, who attends upon him in the ambulance and in the steamer. All patients, moreover, are seen by a medical officer at the wharf before embarkation, so that in any case of doubtful or inaccurate diagnosis, the patient can be sent home or remitted for observation to an isolation ward at one of the land hospitals. Hitherto, the service so carefully organised has worked well, and it must be allowed to be a great improvement on that which, in the course of a short time, it will have entirely superseded. Large as are the expenses being, or to be, incurred, it will be felt that the Managers exercised a sound discretion in making provision for all contingencies, quietly and systematically, while as yet there was no serious epidemic; for they were found prepared, and so panic was avoided, when the anticipated emergency arose.

It goes without saying that the Managers have been hampered, more or less, at every stage of their proceedings, through local opposition, based generally on fears that hospitals, ambulance-stations, and wharves, alike, must needs depreciate the value of adjacent property and injuriously affect the health of the inhabitants. Subject to proper precautions being adopted, I do not think the latter danger is likely to arise and the first-named fear will probably turn out to be ill-founded.

### **COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.**

In several of my Annual Reports I have referred to the need of legislation to secure immediate information to Sanitary Authorities of the occurrence of illness from some of the more dangerous infectious diseases, and in the Report for 1880 (page 44), I gave a full account of the steps that had been taken by means of legislation, in the shape of "Local Acts," to secure such notification in certain provincial towns and boroughs. The subject was continued in my Report for 1881 (page 40), and I

stated that, as the desirability of the extension of such legislation in the shape of a Public Act was generally acknowledged, it only remained for the Government to introduce a measure for the purpose of securing notification. In the Session of 1882, several Private Bills providing for "Police or Sanitary Regulations" were introduced, at the instance of provincial Corporations, and referred to a Select Committee, of which Mr. Selater-Booth, an ex-President of the Local Government Board, was the Chairman. In their Report on the "Sanitary Regulations" the Committee stated, with respect to "Notification," that they had "little difficulty in forming the opinion that the time had arrived when provisions of law on this subject may be sanctioned, at least, in the most important Urban Sanitary Districts." Encouraged by this Report, Mr. Hastings, who was a member of the Committee, with Sir Trevor Lawrence, Dr. Farquharson and Mr. Brinton, introduced a Bill in the Session of 1883, "To provide for the better Notification of Infectious Diseases," drawn on the lines sketched by the Committee in a "Model Clause," which will be found at page 44 of my Annual Report for 1881. Without entering into details I may state that the Bill proposed to throw upon the householder, and upon the medical attendant, equally, the duty of notifying cases to the Medical Officer of Health—the so called "dual system." The gentlemen named are active members of the Social Science Association, the Health Section of which body has taken a prominent part in promoting legislation to secure Notification. The Bill was, in fact, the Bill of the Association, which, moreover, organized a deputation to the Local Government Board in support of it. The deputation comprised, in addition to members of the Association, numerous medical and other persons known to take an interest in the question. The President, Sir Charles Dilke, in his reply, said, in effect, that "There was no difference of opinion at the Board as to the advantageous nature of the powers asked for where they were possessed: the evidence from the various localities where they had been worked was ample on that head. The Board, however, was not quite ready to adopt the Bill, or to support it in its existing form, there being great fear, in going at all

in advance of public opinion, of producing reaction. The Board would be disposed to agree to general legislation in some form—legislation to facilitate the application of the desired provisions by local authorities. The Bill went beyond this, and it was not the opinion of the Board that the time had yet come to give universally the compulsory powers proposed, by absolute legislation. After a few years experience of the working of such provisions in the districts where they had been applied, and in the other districts which would try them very shortly, then, after investigation, the matter might be extended still further. The Board was disposed to give local authorities who wanted compulsory powers, the means of dealing with infectious diseases at once, without the necessity of applying for a local Act; either by means of a general Act, which they could bring into force themselves, or else by giving them power to make bye-laws for that purpose.”\*

The President expressed his willingness to support a proposition to refer the Bill to a Select Committee. The Bill, however, was opposed on the second reading, and the House having been counted out the measure was dropped for the Session. Prior to the reception of the deputation, the President had received a so-called “Vigilance Association,” which desired to enlist his influence in opposition to the Bill, on the ground of its interference with the “liberty of the subject,” indifferent or oblivious to the fact, that the most democratic communities are precisely those which are the most stringent in exercising such interference with individual liberty when it is necessary for the general good. The President subsequently received the Parliamentary Bills Com-

---

\* The Medical Officer of the Board, in his Annual Report for 1881-2, wrote on this subject as follows: “Seeing how greatly the usefulness of Sanitary Action in respect of infectious diseases must depend upon early knowledge of its presence, I have had no hesitation in advising that this power (*i.e.*, of obtaining immediate information of the existence of infectious disease in any house), might properly be possessed by any Sanitary Authority who wanted it, and who, having made adequate arrangements for securing isolation and disinfection for the district, was prepared to put to effectual use the knowledge which a system of disease-notification would afford.” It may be remembered that the Select Committee on “Sanitary Regulations” (House of Commons, Session, 1882), recommended that, “in any future amendment of the Public Act, powers” (*i.e.*, to secure “notification,”) “should be extended to all Urban Sanitary Authorities, or at least that means should be devised for clothing them with such powers on application.”

mittee of the British Medical Association, who urged "That the local authorities should not have the power of imposing the duty of compulsory notification on medical practitioners." The Committee in taking this step, was acting upon a resolution carried, at the Jubilee Meeting of the Association, held at Worcester in 1882, to the effect:—

"That this meeting earnestly desires compulsory notification of infectious diseases, but it wishes to express its opinion that the compulsion to notify should be placed upon the householder, as his duty as a citizen, and not upon the doctor."

Beyond the fact that Parliament signified its continued approval of the principle of notification by passing the "Model Clauses" in certain Local Acts, in the Session of 1884, nothing has to be added to the above statement; and although compulsory notification is urgently required for the public good, it is probable we shall have to wait for a more settled state of political affairs before the present, or any future Government, will be prepared to deal with the subject in a General Act. Meanwhile it is well to be reminded that the Sanitary Authorities of London have expressed themselves unequivocally in favour of the principle of notification, and it may be mentioned that their action was taken under the lead of your Vestry.\*

[ADDENDUM.—In the course of the present year, your Vestry made Regulations for Houses let in Lodgings, or occupied by members of more than one family. The 16th and 17th Regulations, as may be seen in a later part of this Report, require "Notification of infectious diseases" to be given to the Medical Officer of Health by the "keeper" and by any lodger in a "registered house," under section 47 of the Sanitary Law Amendment Act, 1874, which provides for "Notices to be given and precautions to be taken in case of any dangerously infectious or contagious disease under the powers of this Act, or of the principal Act (*i.e.*, "Sanitary Act, 1866), or of the Acts mentioned therein."

---

\* *Vide* Annual Report for 1882, page 69 *et seq.*

Your Vestry, deeming it unreasonable that there should be one law for the rich and another for the poor, adopted my recommendation, and wrote to the President of the Local Government Board, under date 9th March, 1885, as follows :—

"SIR,—I am instructed by the Kensington Vestry to inform you that they have again had their attention directed to the subject of notification of infectious diseases, and to forward the subjoined resolution, unanimously adopted at the meeting held on the 25th ultimo.

"That the attention of the President of the Local Government Board be invited to the subject, and that he be requested to introduce a Bill to confer the necessary powers on Nuisance Authorities, either by a general Act, embodying the Model Clauses of the Select Committee, presided over by Mr. Selater Booth in the Session of 1882, or by an Act to give Nuisance Authorities who want such powers, the means of obtaining them, without the necessity of applying for a local Act, which might be done either by a general Act which they could bring into force themselves, or by giving them the power of making bye-laws for the purpose in question.'

"The Vestry are aware of the interest you take in the question, and their attention has been drawn to your observations thereon in reply to the deputation from the Social Science Association (Public Health Section) during the Session of 1883. The above resolution is, in fact, based on the views expressed by you on that occasion.

"The Vestry have been moved to some consideration of the subject at the present time as a natural result of the confirmation by the Local Government Board, on January 21st last, of their Regulations for houses let in lodgings.

"The 16th and 17th Regulations provide for the immediate notification to the Vestry of the occurrence of infectious diseases in "Registered Houses," a course which, in the opinion of the Vestry, is no less necessary in regard to the occurrence of the same diseases in other than registered houses. The Vestry, anxious to deal equal justice to all classes of their constituents, will therefore be glad, should you be able to comply with their request, by introducing a Bill dealing with the subject.

"I have the honour," &c.

Under date, March 17th, the following reply was received from the Secretary to the Local Government Board :—

"SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 9th inst., communicating to them a copy of the resolution passed by the Vestry of the Parish of St. Mary Abbots, Kensington with reference to the notification of the occurrence of infectious diseases to Nuisance Authorities, and to state that the subject will receive their attention.

"I am, Sir," &c.



It is hardly necessary to add that no action was taken in the matter, and at the present writing (June) the change of Government has led to a change in the Presidency of the Board. The state of public affairs, moreover, precludes all hope of any attention being bestowed on this important question by the existing Parliament.

### VOLUNTARY NOTIFICATION OF INFECTIOUS DISEASES.

While awaiting the advent of a system of compulsory notification of infectious diseases, constant efforts have been made, ever since my appointment in 1871, to obtain, by "voluntary notification," information of the occurrence of such diseases, and it will not be out of place to recapitulate the sources from which such information is now received.

1. By virtue of an arrangement entered into between your Vestry and the sub-district registrars in 1871, I receive notice of every *death* from the graver infectious diseases, (small-pox, scarlet fever, diphtheria, typhus, enteric and simple continued fevers), immediately after registration. When a death from an infectious disease has occurred, there is always a probability of finding cases of illness in the same house or in the locality, and such discovery not unfrequently results from the Sanitary Inspector's visit made, as it is, without loss of time. Occasionally the registration of a death is unduly delayed—sometimes, apparently, with the object of temporary concealment of the cause of death; it would be well, therefore, if registration within a limited period, say twenty-four hours, were made compulsory.
2. The Relieving Officers, by direction of the Board of Guardians, report all cases of the graver infectious diseases that come to their knowledge, and generally these are cases that have been, or are about to be, removed to the hospitals of the Asylums Board. Admittance to these hospitals (although practically denied to no person), can, theoretically, be obtained only on the order of a relieving officer, or of the master of a workhouse.
3. The Asylums Board report all cases of small-pox and fever admitted into their hospitals. In practice, the Board has thrown wide open the doors of the hospitals, and many cases are admitted without the intervention of

the relieving officer, not only upon the application of sanitary officials, but also upon the certificate and application of private medical practitioners, as I long ago recommended.

4. The Resident Medical Officer of the Kensington Dispensary, by request of the Committee of Management, gives me information of all infectious cases, which he is not allowed to treat in the homes of the poor, where isolation is impracticable.
5. Medical men favour me occasionally with information of cases, especially when they desire assistance to get patients, (*e.g.*, domestic servants), removed to hospitals; or when they want the aid of the disinfecting staff.
6. The Chief Commissioner of Police has instructed Divisional Surgeons that on the occurrence of infectious disease being reported in the residence of a police officer, the Medical Officer of Health is to receive due notice of the fact, and such cases are notified occasionally.
7. The Postal Authorities have taken a similar step, having intimated to the numerous medical officers of the Department throughout the country, that if in their several districts it be not already the rule to give notice of infectious diseases to the Sanitary Authority, it would be well that such a rule should be introduced in the case of Post Office servants. A few cases have been notified, but either Post Office servants are very free from infectious complaints, or the requirements of the Department are not much regarded.
8. In my annual report for 1877 I referred to an important resolution by the London School Board which, at my request, directed the Superintendents of Divisions throughout the Metropolis, to instruct the "Visitors" to report to the several Medical Officers of Health all cases of infectious disease coming to their knowledge in the discharge of their official duties, which necessarily take them frequently into the homes of the poorer classes. To facilitate the transmission of this information by the Visitors, I prepared a form for their use, but I must say that the resolution of the Board has not been attended hitherto with all the hoped-for results. The Board, moreover, at one time, showed a disposition to recede from the position they had taken up, for on my calling their attention to the omission on the part of the Visitors to report cases, the "divisional members," to whom my communication was referred, simply recommended that the Visitors should report cases when they had reason to suppose that no duly qualified medical man was in attendance. "When a duly qualified medical man has charge of a case, they are not prepared to do more than take steps for seeing that proper precautions are taken at the Schools." This decision, if it had been final, would have been regrettable. The Board, however, subsequently passed a resolution directing *Teachers* also, to inform the Medical Officer

of Health of the case of any child excluded from the school on account of its showing symptoms of an infectious disease, or of its coming from a house where an infectious disease exists. A few such cases have been reported. Some of the teachers in our part of the "Chelsea Division," I may mention, had previously reported cases occasionally, as a result of an application I made to all of them in 1879, at which time I furnished them with printed forms for the purpose. As a whole, however, the results of my labours in this direction have not realised my anticipations.

9. Clergymen and District Visitors occasionally report cases of sickness.
10. The Resident Medical Officers of St. George's and St. Mary's Hospitals report the admission of cases, or the application of inadmissible cases, of infectious illness, from houses in this parish.
11. Occasionally anonymous communications are the source of information, for I have not felt at liberty to disregard such communications, which have frequently proved to be accurate.

In one or another of the above ways some hundreds of cases come to my knowledge in the course of every year. How many never get reported at all it is impossible to say; but from the fact that the majority of the fatal cases of infectious diseases, other than small-pox, are concealed until after registration of death, it may be inferred that unrecorded cases of recovery are numerous.

## THE RESULTS OF VOLUNTARY NOTIFICATION OF INFECTIOUS DISEASES.

With the view of ascertaining the results likely to follow upon a system of compulsory notification, I some time since made an investigation as to the results of the system of voluntary notification in the parish of Kensington. I took the statistics of mortality for twenty-four years, in respect of the "principal diseases of the zymotic class," comparing the total number of deaths in the first half-period (1859-70), before I entered upon the duties of Medical Officer, with the number in the second half-period (1871-82), during which we have had the inestimable advantage of hospital accommodation. The results of the investigation are set out in the following Tables.

First period of twelve years (1859-70) ; without notification  
and without hospitals :—

DISEASES.	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	Totals.
Small Pox .....	11	18	2	0	49	5	18	10	29	4	6	8	160
Measles.....	42	29	53	30	83	100	52	40	19	84	27	70	629
Scarlet Fever ...	53	86	57	110	89	90	31	28	35	170	106	198	1053
Diphtheria .....	...	...	...	...	...	...	...	...	...	...	9	14	23
Whooping Cough	11	56	37	54	22	56	37	28	68	34	71	55	529
Fever .....	17	25	32	51	54	60	77	33	46	52	42	46	535
Diarrhoea .....	72	35	66	24	54	63	104	112	78	113	108	154	983
Totals .....	206	249	247	269	351	374	319	251	275	457	369	545	3912

Yearly Average...326

Second period of twelve years (1871-82) ; with voluntary notification and with hospitals :—

DISEASES.	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	Totals.
Small Pox .....	120	68	1	0	0	8	84	24	24	11	55	0	395
Measles.....	64	43	38	121	23	128	54	53	60	75	67	77	803
Scarlet Fever ...	95	29	10	32	83	59	31	77	51	105	36	62	670
Diphtheria .....	11	14	11	26	23	17	10	20	26	22	8	25	213
Whooping Cough	72	77	44	45	107	124	34	185	93	95	85	119	1080
Fever .....	48	42	41	52	29	36	27	33	23	33	31	32	427
Diarrhoea .....	129	110	145	112	107	126	99	181	71	128	101	61	1370
Totals .....	539	383	290	388	372	498	339	573	348	469	383	376	4958

Yearly Average...413.

The average population in the first period of twelve years (1859-70), was 90,000,  
and in the second period (1871-82), 147,300.

Summary of preceding Tables, with corrections for increase of  
population :—

Diseases.	Actual number of Deaths in 1st period (1859-70).	Actual number of Deaths in 2nd period 1871-82.	Estimated No. of Deaths in 2nd period, 1871-82, corrected for increase of population.	Increase (corrected) in 2nd period 1871-82.	Decrease (corrected) in 2nd period 1871-82.	Nett decrease (corrected) representing estimated saving of lives in 2nd period 1871-82.
Small Pox .....	160	395	261	134	...	...
Measles .....	629	803	1029	...	226	...
Scarlet Fever & } Diphtheria }	1076	883	1761	...	878	...
Whooping Cough	529	1080	865	215	...	...
"Fever".....	535	427	875	...	448	...
Diarrhoea .....	983	1370	1608	...	238	...
	3912	4958	6399	349	1790	1441

It will be observed that, after making correction for increase of population, there was an increase in the number of deaths, in the second period, in respect of two diseases, small-pox and whooping-

cough. Of whooping-cough I shall only say that it is a disease of which we rarely hear until it has proved fatal, its occurrence never being notified. Small-pox, on the other hand, is more frequently notified than any other disease, and yet the deaths show an increase of 134. This disease, however, was severely epidemic in four years out of the twelve in the second period (1871-82), whereas in the first period of twelve years (1859-70), twice only did the annual number of deaths exceed twenty. Measles exhibits a decrease, although, like whooping-cough, it is not notified; but I am not aware that we are entitled to claim any credit for the reduced mortality. The diminished diarrhoeal mortality may be attributed, in considerable measure, to the coldness of the summer season in several of the years in the second period, and may therefore be regarded as accidental. It is when we come to scarlet fever and enteric fever that the real grounds for satisfaction appear, these being diseases which admit—the latter of mitigation by improved sanitary arrangements, and the former of control by speedy isolation of the sick in hospitals. And what do we find? That the deaths from “fever” in the second period were 108 fewer than in the first period, without correction for increase of population, and 448 fewer after such correction and that the reduction in respect of scarlet fever, was 383, without correction, and with correction, no fewer than 1,053. But it will be observed that in the first ten years of the first period no deaths were recorded from diphtheria, although the Table commences in 1859, the year in which diphtheria was first classified and registered as a disease separate and distinct from scarlet fever. I am unable to account for the omission, there being no records extant, except upon the somewhat improbable assumption that no deaths from diphtheria took place in Kensington in those ten years. I have thought it fair, in any case, to bracket scarlet fever and diphtheria in the two periods, respectively, for comparison; and thus, adding the deaths from diphtheria, only 23 in the first period, and so many as 213 in the second period, to the deaths from scarlet fever, we observe in the second period an absolute reduction of 193 in the number of deaths from the two diseases, the reduction corrected for increase of population being 878.

Comparing the mortality from the "seven" principal diseases of the zymotic class in the two periods, we arrive at a corrected reduction in the number of deaths, in the second period, of no fewer than 1,441. In other words, had the rate of mortality from these diseases been the same in the second period (1871-82), as in the first period (1859-70), there would have died in the second period of twelve years 1,441 persons more than did die, or 120 *per annum*. The zymotic death rate, I may add, which in 1859-70 was 3·6 per 1,000 persons living, fell to 2·8 per 1,000 in 1871-82; the deaths from these diseases, moreover, which in 1859-70 were 18 per cent. of total deaths, were only 15·4 per cent. in 1871-82.

Other causes, doubtless, besides notification, contributed to bring about this satisfactory result, and we must not forget, as regards enteric fever, that this disease, under improved sanitary arrangements, has "continuously and notably declined in England during recent years." Chief among these causes, and one, in my judgment, even superior in efficacy to notification, is the provision of hospital accommodation by the Asylums Board, under the provisions of the Metropolitan Poor Act, 1867. So highly, indeed, do I value this provision, that, were I offered a choice between hospitals and notification, I should unhesitatingly choose hospitals; for this reason, among others, that provision of hospital accommodation leads, almost inevitably, to voluntary notification; whereas, even compulsory notification has comparatively little value if hospital accommodation be wanting.

### **INCREASED FACILITIES FOR THE REMOVAL OF THE INFECTIOUS SICK.**

In 1880, the Board of Guardians manifested their desire to promote the removal of infectious cases, by instructing the Relieving Officers to abstain from taking steps for obtaining payment in respect of persons removed for the purpose of isolation to the Metropolitan District Fever and Small-pox hospitals. The carrying out of these instructions has been attended with the

happiest results, not a single case having since been prevented from going to hospital, on the ground of inability or unwillingness to pay for maintenance and treatment. As I had always held that the removal to hospital of the non-isolated infectious sick, at whatever cost to the public, could be justified on economical grounds, it was a source of satisfaction to me to know that this view was shared by the Guardians equally with your Vestry. Practically, moreover, nothing is lost in money through the enlightened action of the Guardians; for, as the result of an inquiry made in view of the Conference of Sanitary Authorities held at the Town Hall, in March, 1881, I ascertained that no more than £60 had been received by some twenty Boards of Guardians, in respect of 79 patients only who contributed towards their own maintenance, out of 3,100, the number of patients removed to hospitals in little less than one year. Objection had been raised to the principle of "free hospital treatment," for which I contended, on the ground that many patients contributed towards their maintenance a sum which was considerable in the aggregate, and it was said that patients who were able to pay should be made to pay. Even had the pecuniary question been of the supposed magnitude, sanitarians, who know the terrible consequences that so often result from the home-treatment of infectious diseases, when the sick cannot be isolated, would have been ready to justify a sacrifice in money rather than imperil life. It was more difficult to satisfy the representatives of the rate-payers—those who hold the strings of the public purse—that the policy advocated was a wise policy; but the facts and the figures which I laid before the Conference brought conviction, and it was resolved unanimously, "that payment for the assistance given in hospitals to persons removed thereto for isolation, by the Sanitary or the Poor Law Authority, should not be enforced," and, "that the giving of such assistance should not entail on the recipient the loss of any social or political status." The Hospitals Commission, moreover, recommended (in 1882), that "it is desirable in the public interest to attract to the hospitals, even by the bribe of gratuitous treatment, all who will go thither." By the passing of

the Diseases Prevention (Metropolis) Act, 1883, medical relief in the hospitals was depauperised, thus completely justifying my views in regard to the matter.

The above enlightened step for promoting the removal of infectious cases, as a means of protecting the community, is not the only one for which your Vestry as Sanitary Authority, and the parishioners at large, are indebted to the Guardians. The Asylum Board's Hospitals, as is well known, are poor law institutions, although, as mentioned above, admittance into them no longer pauperises the recipients of assistance, few of the patients, moreover, being of the pauper class. For some years, I had contended that the medical certificate of a duly registered practitioner should be accepted as evidence of the nature of an infectious disease, (small-pox, scarlet fever, &c.), in the case of a patient proposed to be removed to one of the hospitals, and that the medical officer of health should be authorized to give the necessary "order" for the reception of the patient. In the Order of the Local Government Board, relating to the admission of patients, the certificate of a district or workhouse medical officer, and the order of a relieving officer, or of a master of a workhouse, are alone recognised. Although my efforts in this direction appeared to produce little result, the discussion to which they gave rise, from time to time, was doing good, and paving the way to a better state of things. In our own parish, for instance, a practice grew up, with the tacit sanction of the Guardians, of accepting a properly authenticated certificate of any registered medical man, as evidence of the nature of an infectious illness, and the patient was removed without the delay that would have been occasioned by waiting to obtain the confirming certificate of the district medical officer. By this plan several hours were sometimes saved in effecting the removal.

A still more notable step, in the same direction, but equally informal, was taken in June, 1884, by the Ambulance Committee of the Asylums Board, a step to which I referred in my last report with unfeigned satisfaction, as it conceded even more than I had ventured to ask, and had brought about the removal of infectious



cases with the utmost attainable rapidity. The committee, determined that no avoidable delay should take place, resolved to admit cases of small-pox and fever into the hospitals upon the direct application of any duly registered medical practitioner, and without a previous order of a relieving officer. Applications were to be made at the chief offices of the Board, Norfolk Street, Strand, by telegram, during the hours telegraph offices are open, on week-days only. The offices are in telephonic communication with all the hospitals, and immediately on receipt of a telegram an order is sent to the Superintendent of the Ambulance Station of the district, who, despatches an ambulance with a nurse to remove the patient. The details of the scheme are set out in the "Regulations of the Board for the removal of cases of Small-pox and Fever by the Land and River Ambulances," (June 21, 1884). Information of cases so admitted is sent to the Clerk to the Guardians, and, in accordance with my suggestion, every case is reported to the Medical Officer of Health also, so that he may take proper measures for disinfection, &c.

Such an admirable plan was impossible of execution while the ambulance arrangements were under the control of numerous local authorities, but it became practicable when the Board decided to undertake the duty of removing the sick over the entire area of the Metropolis. In this connexion I may mention that the Western District Ambulance Station, adjoining the Hospital at Fulham, being now in use, applications for removal of cases to that hospital between the hours of 8 p.m. and 8 a.m., and all day on Sunday, are required to be sent to the Ambulance Superintendent direct. To facilitate the working of the new system, the Guardians, at my suggestion, resolved to place their offices in direct telephonic communication with the offices of the Board. I may add that I communicated the above information as to the facilities for the removal of cases to the medical men throughout the parish, and supplied them with copies of a suitable form of certificate, &c. I also informed them that your Vestry would reimburse the cost of the telegraphic application for removal in the case of any patient unable, through poverty, to pay for it.

The plan answered admirably, but after ten months of practically unqualified success, there is reason to fear that it may shortly be discontinued. The present position of the matter cannot be explained without reference to the past proceedings of the Board, and of the Local Authorities, with respect to the treatment of non-pauper cases, and first of all to the circumstances which gave rise to the passing of Section 15 of the Poor Law Act, 1879.

THE POOR LAW ACT, 1879.—In my Annual Report for 1878-9, page 24, I referred to the proceedings of a Conference of Sanitary Authorities held at the Cannon Street Hotel with the object of considering what provision should be made for Hospital accommodation for “non-pauper” cases of infectious disease, and to the deputation which waited on the President of the Local Government Board (March, 1879), to submit the resolutions arrived at by the Conference. Mr. W. A. Lindsay, a member of your Vestry, was chosen by the delegates to give expression to their views, the main object of the Conference, as it ultimately took shape, having been to induce the Government to obtain Parliamentary powers to enable Local Sanitary Authorities, and the Managers of the Asylums Board, to enter into contracts for the reception and treatment of non-pauper cases of infectious disease in the Hospitals under the control of the Managers. The President intimated his willingness to do this, and in the course of the Session he introduced the measure known as the Poor Law Act, 1879, which enables the Managers, with the approval of the Local Government Board, to contract with any Vestry in the Metropolis, (as the Local Authority acting in the execution of the Nuisances Removal Act, 1855, &c.), for the reception and maintenance in the Hospitals of the Managers, of any person suffering from any dangerous infectious disorder within the district of any such Vestry. Any person admitted at a Hospital by virtue of any such contract, under the 15th Section of the Act, is deemed to be maintained in such Hospital by the Vestry with which the contract is made, and any expenses incurred by the Vestry for the maintenance of any person under the section, are deemed to be due from such person to the Local Authority and may be recovered from him or his representatives,

at any time within six months after his discharge from such Hospital or after his death.

The powers thus given to the Sanitary Authority to contract for the maintenance of the sick in Hospitals, was a roundabout way of effecting the depauperisation of medical relief in the Managers' hospitals which has since been brought about, as I had so long urged it should be, by direct legislation, viz.: in the Diseases Prevention (Metropolis Act), 1883. The 15th Section of the Poor Law Act, 1879, has remained inoperative hitherto, the Managers not having applied to the Local Government Board for authority to enable them to enter into contracts with Vestries, &c. Within the last year or two, however, some of the Vestries have been put to great straits to provide for the admittance at hospitals of cases of small-pox and fever, and this difficulty led them to make application to the Managers to receive such cases on payment of expenses. But while the Managers were quite willing to receive all cases sent by the Relieving Officer, (and, as I have before said, all cases from this parish have been received for many years past on the orders of the Relieving Officers, thanks to the co-operation of the Board of Guardians), they were unable to receive any case lawfully without the order of a Relieving Officer. In many parishes the Guardians have, very unwisely, refused to co-operate with the Sanitary Authority, *e.g.*, by directing the Relieving Officers to give orders for "non-paupers"; and as there was practically no hospital accommodation other than that provided by the Managers, the sick had to be treated at home, and thus the spread of disease was brought about.

At a meeting held on 25th October last, the Managers received and adopted a report by the Committee for General Purposes (arising out of the above mentioned applications), which recommended that the Local Government Board be requested to place themselves in communication with the several Sanitary Authorities of the Metropolis, with the view of issuing an order which should empower the Managers to contract with such authorities for the reception into the Managers' Hospitals of cases of dangerous infectious disease other than those chargeable to the various

parishes and unions ; orders for the admission of such cases to be signed by the Medical Officers of Health. [Incidentally it may be here mentioned that the Local Government Board, in a letter to the Managers, dated December 6th, expressed the opinion that their order was not necessary, but that any contract which the Managers proposed to enter into, under the 15th Section of the Poor Law Act, 1879, must be submitted to and approved by the Board].

By way of parenthesis it may be mentioned that the scheme of the Managers, if adopted—and it is substantially the scheme I proposed in March, 1877, in a communication addressed to the Managers, having previously shadowed it forth in 1875, in a communication addressed to the Local Government Board—would constitute the Asylums Board the hospital authority for dealing with cases of infectious disease in the Metropolis. Some such scheme is necessary, for there should be but one hospital authority ; and under existing circumstances there is no other authority than the Managers that is capable of undertaking the work. To all practical intents, moreover, the Managers are now a central sanitary or *quasi*-sanitary authority, acting for the whole Metropolis, and arrangements should be made for bringing them into close and definite relations with the Local Sanitary Authorities. It matters not whether the Poor Law Authority or the Sanitary Authority pays for the maintenance of the sick ; the money comes out of the same pocket ; but it would be a matter for regret should Local Authorities attempt to recover from the sick person or his representatives, any expenses incurred for maintenance in hospital. There is, perhaps, little reason to fear that any such attempt will be made. It would be unreasonable, for the Sanitary Authority isolates the infected for the protection of the healthy, and often finds it difficult enough to persuade the sick person to go into hospital. Should the Authority in such cases try, upon the discharge of the patient, to make him pay for an irksome seclusion, to which probably he unwillingly consented *pro bono publico* ? Were the power to do so exercised, it would practically neutralise any advantages to be expected from the proposed system of contract. It is to be hoped, therefore, that any

arrangements that may ultimately result from the proceedings of the Asylums' Board, may be based on the two-fold principle of free hospital treatment and payment out of a common sanitary fund, the Metropolis being treated, for the purpose, as a single district. A short Act would be necessary to give legal effect to these views, which, if properly represented, would probably obtain the concurrence of all parties. But to resume:—

The Managers having, (on October 25th, as already stated), adopted the report of the Committee for General Purposes, it was, in due course, forwarded to the several Sanitary Authorities. The report having been duly considered by your Vestry, a communication was addressed to the Board, and to the Local Government Board also, the nature of which is sufficiently indicated in the subjoined communication, which was, at the same time, addressed to the several Vestries of the Metropolis:—

“SIR,—I am instructed by the Kensington Vestry to state for the information of your Vestry that they have had under consideration the Special Report of the General Purposes Committee of the Metropolitan Asylums Board upon the subject of the reception and treatment of non-pauper cases of infectious disease in the Managers' Hospitals, and that they have informed the Managers that they see no reason to depart from the principles already adopted by the Vestry, in 1878 and 1881, with reference to the said subject, viz.:—

- (a) That the Managers of the Metropolitan Asylums Board should be empowered to make adequate provision of hospital accommodation for infectious disease for all classes of the population in need of such accommodation.
- (b) That patients should be admitted into the Managers' Hospitals upon certificates signed by any duly qualified medical practitioner.
- (c) That as the hospitals of the Managers have been established for the common good at the public cost, no compulsory payment should be exacted from persons whom the Sanitary Authority may deem it necessary or expedient to remove to the hospitals for the purpose of isolation.

- (d) That all expenses incident to the maintenance and treatment of such persons in the hospitals should be defrayed out of a Common Sanitary Fund, the Metropolis being treated for the purpose as a single district ; and
- (e) That steps should be taken to alter, by Act of Parliament, the constitution of the Board, by severing its connection with pauperism in so far as relates to the treatment of infectious disease, and by providing for the election of a certain proportion of the Managers by the several Sanitary Authorities, *i.e.*, the Vestries and District Boards of Works.

“The Vestry have invited the Managers to consider the greater simplicity and superior advantages of the plan of throwing the entire expenditure incurred by the Board in the hospital treatment of infectious disease upon a Metropolitan Fund, as compared with that of contracts with individual Vestries and District Boards, as proposed, under the provisions of the Poor Law Act, 1879, and suggested the desirability of legislation to give effect to such plan.

“In this connexion I am to recall to the recollection of your Vestry the following resolution, which was unanimously adopted at a Conference of Metropolitan Sanitary Authorities held at this Town Hall, March 23rd, 1881, viz. :—

‘That the admission into hospitals for the purpose of isolation of persons suffering from infectious disease, and being without proper lodging or accommodation, is eminently desirable in the interests of the public and should be encouraged ; that payment for the assistance given in hospitals to such persons removed thereto for isolation by the Nuisance or the Poor-Law Authority should not be enforced ; that the giving of such assistance should not entail on the recipients the loss of any social or political status, and, that the cost of hospital treatment of such infective sick persons should be made a charge on the Metropolitan Common Poor Fund.’

“Some thirty Sanitary Authorities were represented at the Conference, and the above resolution was submitted to the President of the Local Government Board, April 23rd, 1881, by a deputation composed of delegates of the Vestries and District Boards, supported by the Council of the British

Medical Association, the Society of Medical Officers of Health, the Social Science Association (Public Health Section), and the National Health Society.

“The Kensington Vestry have resolved to address the Local Government Board on the above subject, and I am instructed to request your Vestry to take into consideration the desirability of supporting their representations in favour of throwing the entire cost of the hospitals on what may be called a Sanitary Common Fund.

“By direction of the Vestry I forward print of a report on the subject by their Medical Officer of Health, with whose views generally they coincide.”

“I am, Sir, &c.”

I had previously brought the subject under the consideration of the Society of Medical Officers of Health, and it was referred to the Council, whose report, unanimously adopted by the Society, reads as follows :—

“The Council having taken into consideration the Special Report of the General Purposes Committee of the Metropolitan Asylums Board, with the knowledge of the fact that in some parishes and districts, from want of co-operation between the Poor Law and the Sanitary Authorities, difficulty has been experienced in obtaining the removal to the Asylum Board's Hospitals of cases of infectious disease, cannot but approve the plan of contracts suggested by the Managers under the provisions of the Poor Law Act, 1879, section 15. At the same time the Council are of opinion that, as relief in the hospitals no longer entails pauperisation, cases should be admitted upon the certificate of *any* medical practitioner, that the expense of treating cases in the hospitals should be defrayed out of a Common Sanitary Fund (the Metropolis being treated as a single district for the purpose), and that no compulsory payment should be exacted from persons removed to hospitals for the purpose of isolation.”

In my second report for the current year (March 2nd, page 13), I stated that “the Managers having on February 17th taken into consideration the Local Government Board's letter,” (intimating that their Order was not necessary to empower the Managers to

contract with sanitary authorities), "and being of opinion that there would be no occasion for any special form of contract, resolved to inform the several local authorities that they were prepared until further notice to give effect to Clause 15 of the Poor Law Act of 1879, by admitting into their hospitals patients suffering from fever and small-pox, upon the orders of the Medical Officer of Health, at a fixed charge of four guineas per case, such charge to include the maintenance and clothing of the patient when in hospital, as well as removal to and from the hospitals, but not the cost of any new clothing that may be supplied on discharge ; neither will it include the cost of the funeral of any patient who may die in hospital." "The Managers' responsibility, thus voluntarily assumed, for the reception and treatment of non-pauper cases will cease immediately accommodation at the Managers' disposal shall no longer be available," and then, "the duty of providing for the treatment of patients," other than paupers, will devolve, as now, upon the sanitary authority of the district where the cases may arise. The Managers "cannot undertake to make any class distinction in the treatment of patients confided to their care, and it will rest with the Sanitary Authority, as it may think expedient, and according to the circumstances of each individual patient, to recover all or part of the expense incurred in his maintenance and treatment in hospital." In the existing state of the law, it would, no doubt, prove highly convenient to some of the sanitary authorities to be enabled to send patients into the hospitals on the terms set out in the resolution adopted by the Managers, for the simple reason that the Boards of Guardians in the districts of such authorities, will do nothing to facilitate the admission of patients who are not paupers. But where, as in this parish, the Guardians unite cordially with the Sanitary Authority in every effort to check and prevent the spread of infectious diseases, and are willing to accept the pecuniary responsibility in regard to all local cases admitted into the hospitals, any change in system would but complicate matters, without any corresponding advantage ; there being no question of the true economy of safe isolation of infectious patients, in hospitals, at the public cost ; the money,



moreover, coming out of the pockets of the ratepayers whether it be paid by the one Authority or by the other.

Up to the present time (June) the proposed circular letter, referred to in the proceedings of the Managers at the meeting on February 17, has not been received. The delay is the result, probably, of the difficulty in dealing with the subject, created by ten months' practice of the new system of admitting patients on the direct application of medical men, and without the previous order of the Relieving Officer, to which I have already alluded. I am led to this conclusion by a correspondence which I have had with the Board, to which reference must now be made. I have already stated that the new system of removals was initiated by the Ambulance Committee in June, 1884.\* At that date the Asylums Board adopted new "Regulations for the removal of cases of Small-pox and Fever by the Land and River Ambulances" prepared by the said Committee. And although the Board was not asked to sanction the new system of admitting patients—which, in fact, they could not have done, having regard to the terms of the Local Government Board's Order relating to the admission of patients—it must be obvious, I think, that the Regulations were framed to facilitate the new practice, and it can not be doubted that the new practice was known to the Clerk to the Board, and to the Managers, or many of them, individually. In any case it was at the suggestion of one of the Managers that I addressed the following letter to medical men in Kensington, in July, at which time, moreover, I made known to my colleagues the Medical Officers of Health also, what I described not quite correctly perhaps as "the new departure by the *Board*."

"Dear Sir,—I have good authority for stating that, with the view of avoiding all unnecessary delay in the removal of cases of Small-pox and Fever, the Metropolitan Asylums Board will admit any patient upon the direct application of any registered Medical Practitioner, and without the previous order of a Relieving Officer.

"The application should be made by telegram, addressed to the Clerk of the Ambulance Department, 37, Norfolk Street, Strand. Attendance is

---

\* But on this point see page 99 et seq.

given at the office between the hours of 8 a.m. and 8 p.m. Application may be made to the Superintendent of the Ambulance Station, Western District Hospital, Seagrave Road, Fulham, S.W., between 8 p.m. and 8 a.m., and on Sunday also. (The Vestry will reimburse the cost of the telegram when the Patient, through poverty, is unable to pay for it.)

"The application must state the Name, Age and full Address of the Patient, and in Small-pox, whether the case is of a 'Mild' or a 'Severe' type. Mild cases of Small-pox are usually sent direct to the Hospital Ships; severe cases always to the Western District Hospital.

"Upon receipt of the application, an Ambulance, with a Nurse, will be sent to remove the patient.

"The Medical Practitioner should leave a Certificate at the home of the Patient for delivery to the Nurse, and is requested to obtain certain particulars relating to the case, for the information of the Board.

"I enclose copies of a Form of Certificate and 'Statement' employed by myself, trusting it may be of use to you should you have occasion to remove any cases of Small-pox or Fever. I shall esteem it a favour if you will give me immediate information of any cases removed, in order that I may make arrangements for disinfection.

"You will, I am sure, appreciate the importance of this new departure by the Asylums Board, and I confidently rely on your good offices to ensure its success.

"I am, &c."

Shortly after the issue of the above letter, and the matter having been brought under the notice of the Chairman of the Asylums Board, in consequence of an application made by another Medical Officer of Health for "confirmation" of my statement, I received a communication from the Chairman (dated July 29th) asking me to inform him of my "good authority" mentioned therein. In my reply, I gave as my authority the name of a member of the Ambulance Committee, I referred moreover to the Regulations of the Board made June 21st, which "amply confirmed" the statement of my authority, and I reminded the Chairman that cases of small-pox were at that time being removed in conformity with the new arrangements. I heard nothing further about the matter for many months, and the new system went on

working smoothly, as I believed, and in all respects to the advantage of the public health.

In May of the present year, however, I received a request from the Clerk to the Asylums Board to furnish him with a copy of my letter of July 22, 1884, "with reference to the removal of infectious cases to the Managers' Hospitals on certificates signed by qualified medical practitioners." I forwarded a copy of the letter, and a few days later I received a further letter, (dated May 14th), in which it was stated that "arrangements were in progress whereby it was proposed to contract with various sanitary authorities for the admission at a fixed charge, of patients, other than paupers, into the Managers' Hospitals upon the authority of the Medical Officers of Health." It was also stated that my circular letter of July 22nd had caused "inconvenience to the officials of the various ambulance stations, and had necessitated an irregular departure in several instances from the rules and regulations prescribed for their guidance." The Committee for General Purposes, therefore, requested me "to take such steps as might be necessary for withdrawing my circular letter at the earliest possible opportunity." In reply I reminded the Committee (May 18th) of my "authority" for the statements made, and that I had applied to the Clerk (July 4th) for "official confirmation" of them before issuing my circular letter. I referred also to the Clerk's reply to my application, to the effect that, although he could not give me the desired "official confirmation," "any application made at his office for the removal of a patient would receive attention," which appeared to me to be "confirmation" enough for my purpose. I requested to be informed "Whether the Board had discontinued or proposed to discontinue, and if so from what date, to admit patients on the direct application of medical practitioners?" and "Whether the 'Regulations for the removal of cases of small-pox and fever by the land and river ambulances' adopted by the Board on the 21st June, 1884, had been rescinded?" it being being apparent that certain of those regulations, prepared by the Ambulance Committee, had been drafted in view of the altered conditions under which the Committee had resolved to admit patients, with, as I ventured to assume, the tacit approval of

the Board.”\* I stated that the new arrangements had “worked well, were not unknown at the Local Government Board, and were approved by the Medical Officers of Health,” and I submitted that “any trifling inconvenience” referred to “might be removed by the formal recognition of them by the Board,” if indeed the “tardy objection” of the General Purposes Committee to my circular letter did not arise out of the proposed arrangements for contracting with the Vestries, with which arrangements obviously the “new system of removals is inconsistent.” I pointed out that there would be as much delay in getting the “order of the Medical Officer of Health” as in getting an order of the Relieving Officer, and that the order of the Medical Officer of Health would represent “an indirect application for removal by a medical man,” for he could not visit the case, and must act upon the certificate received. “The money question I could not regard, but the expense would fall on the same ratepayers, whether met in the first instance by the Sanitary or by the Poor Law Authority.” I concluded by saying that “if upon further consideration the Committee still desired me to withdraw my letter of July 22nd, 1884, I would do so, but that the

---

\* The following Regulations are in point :—

1. [States that applications for the removal of cases must be made at the Offices of the Board on week days, during office hours, and at the Ambulance Station of the district, between 8 a.m. and 8 p.m. on Sundays, and between 8 p.m. and 8 a.m. every day.]
2. “Such applications must state the name, age, and full address of the patient, and from what disease suffering: in cases of fever to state the particular kind of fever, and in cases of small-pox whether the case is of a mild or severe type.”

*“Applications which do not give these particulars shall be referred back to the applicant for the required information to be furnished.”*

[The italics are in the original. The above directions would have been quite superfluous for district medical officers and relieving officers, who use printed official forms for the medical certificate and for the admission order.]

4. “Subject to the control of the Committee appointed to regulate such matters, the Clerk to the Board is to give all necessary directions for the removal of acute cases from their homes to the hospitals, &c.”
6. “Upon the removal being effected, the Superintendent of the Ambulance Station is to send notice thereof to the Clerk to the Guardians of the parish from which the case was conveyed, &c.”

[Such notice would be unnecessary in regard to a patient removed upon the order of a relieving officer, who would naturally report the case to the Clerk to the Guardians in due course; but as a patient, admitted on the application of a medical practitioner, would become chargeable to the Guardians, it was necessary to notify the admission to the Clerk.]

withdrawal would be accompanied by a statement of the circumstances under which the letter was issued." In a further communication, dated May 28th, no reference was made to the suggested withdrawal of my letter, but new ground was opened, the Clerk writing as follows :—

"It is the desire of the Committee . . . . . that every reasonable facility for the prompt and proper removal of these patients to the hospitals should be afforded, and, with this object in view the Committee are desirous of ascertaining whether, in your opinion, some means could be adopted whereby the Vestry of Kensington would hold themselves responsible, under the contract contemplated by Section 15 of the Poor Law Act, 1879, for the cost of maintenance of cases of fever or small-pox, which may be removed to hospital, *not*, however, upon the order of any qualified medical practitioner, but upon the certificate of *certain* qualified medical practitioners in the parish, who would not only act as deputies of the Medical Officer of Health, and be responsible to him for the proper diagnosis of the cases to be removed, but would also be recognised by the Vestry as their responsible officers in regard to this particular branch of sanitary legislation."

Writing on the 5th June, I ventured to point out that "the suggested arrangement would substitute the certificate and the direct application of one of a few selected doctors for the certificate and the direct application of any registered medical practitioner," and that "the application for removal of a 'non-pauper' would necessarily have to be made in the first instance to the Medical Officer of Health, who, when found, would have to request a selected doctor to visit the case. As it would not always be easy to find, or to ensure the immediate attendance of the doctor selected to visit the case," I was "afraid that time would seldom be saved by the arrangement as compared with the system of application by the friends of the patient to the Relieving Officer, and removal of the case in strict conformity with the Order of the Local Government Board." I referred to the fact that prior to July, 1884, "the certificate of any known medical practitioner, acting for the purpose as deputy of the District Medical Officer, had come to be recognised, by certain Relieving Officers," (I was alluding to the Kensington Relieving Officers), "as evidence of

the nature of an infectious disease, with the effect of saving time in the removal of the patient, as compared with the strictly legal procedure of requiring the District Medical Officer's certificate, but with some loss of time as compared with the new system of admitting patients on the direct application of any registered medical practitioner. The latter system," I added, "altogether informal as it may have been in its inception, and although it is admittedly not in conformity with the Order of the Local Government Board, relating to the admission of patients, has nevertheless proved in practice to be the best for ensuring the speedy removal of cases of infectious disease." "In the interests of public health," therefore, I still trusted that this system might be "made to work so as to obviate the difficulties to which, in a few exceptional cases, it has given rise." If this were not possible I hoped that "provision would be made to enable the Relieving Officer to act upon the certificate of any registered medical practitioner," for I could not "see that anything is to be gained by giving the Medical Officer of Health the power of admitting patients unless he may act on the certificate of any registered medical practitioner." The pecuniary question I said was "not deserving of consideration in comparison with the question of speedy isolation of infectious persons, a question" in which I knew the Managers were "deeply and primarily interested."

I had commenced my letter by stating that I did not think your Vestry would be disposed to entertain the arrangement contemplated by the General Purposes Committee, but requested to know if I might bring the subject to the notice of the Sanitary Committee? Under date June 12th the Clerk informed me that the Committee had deferred the consideration of my letter of June 5th, until their meeting to be held June 23rd. "In the meantime I am desired by the Chairman and Vice-Chairman of the Board to request that you will bring under the notice of the Vestry of Kensington the suggestions embodied in the communication which I addressed to you on the 28th ultimo." I did as requested at the meeting held June 17th, and your Vestry referred the communication to the Works, Sanitary and General

Purposes Committee for consideration and report. The Committee took the subject into consideration on June 23rd; their report was adopted by your Vestry on July 1st, and the subjoined communication was addressed to the Clerk to the Asylums Board on the following day:—

“Sir,—I am directed by the Vestry of Kensington to state that they have had under consideration your letter dated May 28th last, addressed to their Medical Officer of Health, in which you state that the General Purposes Committee of the Metropolitan Asylums Board request to be informed—

‘Whether some means could be adopted whereby the Vestry would hold themselves responsible (under the contract contemplated by Section 15 of the Poor Law Act, 1879) for the cost of the maintenance of cases of fever or small-pox which may be removed to hospital upon the certificate of certain qualified medical practitioners, who would act as deputies of the Medical Officer of Health, and be responsible to him for the proper diagnosis of the cases to be removed, and would also be recognised by the Vestry as their responsible officers in regard to this particular branch of sanitary legislation?’

“In reply, I am directed to state, for the information of the General Purposes Committee, that the Vestry gave particular attention to this subject in November last, in connection with the Special Report of the same Committee, dated October 14th. The Vestry having further considered the matter, see no reason to depart from the principles referred to in their letter to the Managers, dated November 21st, as having been previously adopted by the Vestry with reference to the question of the ‘reception and treatment’ of so-called non-pauper patients at the Managers’ hospitals. They are not prepared, therefore, to entertain the proposed plan of contracting with the Managers for the reception and treatment of such patients.

“The Vestry desire again to invite the attention of the Committee to what they consider to be the greater simplicity

and the superior advantages of the plan of throwing the entire expenditure incurred in the hospital treatment of infectious disease upon a Metropolitan Fund, as compared with the plan of contracts with the several sanitary authorities. And as the system of admitting patients at the hospitals on the direct application of medical practitioners has worked so well, and so much to the public advantage, in this parish, the Vestry would further invite the Committee to consider the desirability of steps being taken to remove whatever difficulties have been found to interfere with the success of that system, and to obtain for it the sanction of the Local Government Board, and, if necessary, of the Legislature.

“I am, Sir,” &c.

To the above communication a reply was received, dated July 8th, in which the Clerk to the Board stated that—

“The Committee observe with regret that the Vestry, instead of accepting the very reasonable and practicable proposals which the Committee have put forward on behalf of the Managers, should have again considered it expedient to suggest that patients should be admitted into the Managers' hospitals upon the direct application of any medical practitioner. That the result of such a practice would prove satisfactory, even if its adoption were sanctioned by the Legislature, the Committee entertain considerable doubt, inasmuch as it must be admitted that whenever and to whomsoever the power of ordering the removal is committed, it must necessarily be accompanied by such regulations, restrictions, and responsibilities, as would satisfactorily ensure due care being taken in the diagnosis of the diseases, and prevent too indiscriminate an enforcement of the authority conferred. In the present state of the law, however, the proposals of the Vestry are both illegal and impracticable, whilst their invitation that the Committee should consider the desirableness of steps being taken to remove whatever difficulties have been found to interfere with the assumed success of a system which (although the Vestry appear to have been informed otherwise) the Managers as a body have never in any way recognised, is not one which the General Purposes Committee are at present disposed to recommend the Managers to entertain.”

With reference to the above letter, I may be permitted briefly to observe—



1. That there was no impropriety in the request to the Committee to consider your Vestry's suggestion that patients should be admitted into the hospitals upon the direct application of any medical practitioner, there being no evidence that the suggestion when first made to the Managers had been considered by that body.

2. That the system of admitting patients upon the application of private medical practitioners has been in operation for nearly twelve months, although, not "recognised by the Managers as a body."\*

3. That the system has been a "success" and the Committee do not dispute the fact.

With reference to the suggestion that I have informed your Vestry that the said "system" had been "recognized by the Managers as a body," I need hardly say that I have not done so. What I did report to your Vestry may be seen in my seventh report for 1884 (July 12, page 44). It was to the effect that the Ambulance Committee "determined that no avoidable delay should take place" (in the removal of patients), had "resolved to receive any case of small-pox or fever into a Board Hospital upon the direct application of any duly registered medical practitioner and without a previous order from a relieving officer." I said further, that "the details of the scheme are set out in the new Regulations of the Board for the removal of cases of small-pox and fever by the land and river ambulances just issued."† The Regulations provide for notice of any case admitted at any hospital being sent to the Clerk of the Guardians, and I mentioned that I had "suggested that information of cases admitted direct into the hospitals, should be forwarded at once to the Medical Officer of Health, in order that he might take proper measures for disinfection, &c." This "suggestion" of mine was embodied in a letter

---

\* Should cholera invade the land patients would be admitted at the Managers' hospitals in an even less formal manner, just as Small-pox patients now are, on presenting themselves at the gate.

† See Regulations, foot note, page 111, *ante*.

addressed to the Clerk to the Board, July 10, 1884. I may further mention, here, that I had sent to the Clerk the letter of the Manager, on whose authority, and at whose request, I subsequently issued my circular letter to medical practitioners in July, 1884, so as to obtain "official confirmation" of its "good tidings," that cases would be admitted on the direct application of medical practitioners, with the result above stated.

The Manager, my authority, was a Member of the Ambulance Committee, and I naturally supposed that he was acting upon direct knowledge of the proceedings of the Committee, but he has quite lately told me that his information was obtained from Mr. Freethy, the (late) Clerk to the Committee, and, still more recently, that the decision to admit patients on the application of medical practitioners was that of the (late) Chairman of the Committee, and not the formal act of the Committee as a body. Be this as it may, the "decision" has been acted on for nearly twelve months.\* How this came to pass it is for the Board to ascertain and to explain. For the rest, I have only to observe, that if the Board of Managers will no longer allow patients to be admitted upon the application of medical practitioners, they should say so, and then I could have no difficulty in "withdrawing my circular letter of July 22, 1884," as requested by the General Purposes Committee. But, I repeat, the withdrawal of the letter must, in simple justice to myself, be accompanied by the publication of the entire correspondence, given above in abstract, for it would show, what I am entitled to have demonstrated, that in sending out that letter I did not act without what appeared to be adequate authority nor without proper caution.

INTERRUPTION OF EDUCATION AT ELEMENTARY SCHOOLS  
RESULTING FROM THE PREVALENCE OF INFECTIOUS DISEASE.  
—It is the practice at Board and other elementary schools to  
refuse admission to children from houses where infectious disease

---

\* On the day when the above words were written, a case of small-pox was removed to hospital on the application (by telegraph) of a private medical practitioner in Kensington.

exists, even when the rejected children are not members of the family affected. The propriety of this practice is beyond question, and to its existence we may reasonably ascribe the fact that it has never been found necessary, in this parish, to close a school on account of the prevalence of infectious disease among the pupils. The "notification of infectious disease," when it shall have been secured by legislation, and the increased powers of removal to hospital of non-isolated cases of infectious sickness, for which Sanitarians are asking as a correlative measure, will probably have the desired effect of limiting the occasions on which it will become necessary to close schools on account of epidemics, *e.g.*, of scarlet fever. Sanitary authorities have greater powers under the provisions of the new Education Code\*, than they formerly possessed, to close schools—powers which it need hardly be said should be used with great care and discretion. It has been my constant endeavour to obtain the co-operation of school teachers, especially when infectious disease exists among their pupils, and this system has often been attended with excellent results. A regrettable fact connected with the existence of infectious disease, in relation to education, is the length of time during which children living in infected houses, but in good health themselves, have to be kept away from school, to the curtailment of the short period devoted to education, and although they may at the same time be meeting their school fellows at play, thus to a certain extent neutralising the precautions taken at school. It is obvious that fresh and even stringent legislation is needed to enable us to cope with a difficulty of this sort, viz., an Act for the compulsory removal of the sick when such removal is necessary to secure isolation.

---

\* "The Managers must comply with any notice of the Sanitary Authority of the district in which the school is situated, requiring them for a specified time, with a view to prevent the spread of disease, either to close the school, or to exclude any scholars from attendance, subject to an appeal to the Department, if the Managers consider the notice to be unreasonable."

## POPULATION, INHABITED HOUSES, &c.

The population of Kensington, *estimated* to the middle of the year was, in round numbers, 170,000: males, 68,200, and females 101,800; excess of females, 33,600. The population of the Town sub-district was, approximately, 125,400, and that of the Brompton sub-district 44,600. The natural increase during the year, represented by the excess of births over deaths registered, was 1,756: an estimated further increase of 244 represents the excess of immigration over emigration; total increase, 2,000. It is always difficult to estimate with accuracy the number of persons living in a large and populous place still, like Kensington, in the process of growth. The best available test, perhaps, is the number of inhabited houses: if these show an increase, an increase in the number of people may be inferred, and *vice versâ*. In July, 1884, there were some 21,290 occupied and rated premises, an increase of 260 as compared with July, 1883, which would account for an increase in the population of 2,000, the Census in 1881 having shewn an average number of about 8 persons to a house. In places having a stationary population, *e.g.*, parishes which have no available building land, and which are not undergoing obvious depopulation, as by the pulling down of the houses of the poor to make room for mansions, warehouses, &c., the birth-rate may serve as a guide in estimating a population. But this test is of little practical avail in a place like Kensington, where, as we shall see, with a constantly increasing population, that not merely the birth-rate, but the absolute number of births also, has declined considerably of late years, fewer children having been born in 1885 than in 1875, when the population was less by 30,000. The most remarkable feature, however, in connection with the population of Kensington, one, moreover, which, to a large extent, accounts for the small and diminishing birth-rate, is the inordinate excess of females. It was thought astonishing when the Census of 1871 revealed a majority of 22,000 females; the majority now exceeds 33,000. Females are in excess in the population generally; in London the excess is about 13 per cent., in Kensington it is 50 per cent.

The subjoined Tables show the relative numbers of persons of each sex at the Census of 1881, grouped according to age, (a) in the entire parish, (b) in the Kensington Town sub-district, and (c) in the Brompton sub-district.

## (a) ENTIRE PARISH.

All ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
Females ....97,700	8753	15361	23391	19789	12606	8339	5472	2901	965	115	8	97,700 Females.
Males .....65,451	8832	13501	12452	10793	8397	5549	3619	1748	502	58	—	65,451 Males.
Excess of Females } 32,249	-79	-1860	10939	8996	4209	2790	1853	1153	463	57	8	32,249 } Excess of Females.
Total of both sexes } 163,151	17585	28862	35843	30582	21003	13888	9091	4649	1467	173	8	163,151 } Total of both sexes

## (b) KENSINGTON TOWN SUB-DISTRICT.

All ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
Females .....70,134	6952	12141	15640	13453	8996	6031	3968	2168	701	79	5	70,134 Females.
Males .....50,007	6969	10986	9205	7936	6404	4099	2669	1310	386	43	—	50,007 Males.
Excess of Females } 20,12	-17	-1155	6435	5517	2592	1932	1299	858	315	36	5	20,127 } Excess of Females.
Total of both sexes } 120,141	13921	23127	24845	21389	15400	10150	6637	3478	1087	122	5	120,141 } Total of both sexes

## (c) BROMPTON SUB-DISTRICT.

All ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All ages.
Females .....27,566	1801	3220	7751	6336	3610	2308	1504	733	264	36	3	27,566 Females.
Males .....15,444	1863	2515	3247	2857	1993	1450	950	438	116	15	—	15,444 Males.
Excess of Females } 12,122	-62	-705	4504	3479	1617	858	554	295	148	21	3	12,122 } Excess of Females.
Total of both sexes } 43,010	3664	5735	10998	9193	5603	3758	2454	1171	380	51	3	43,010 } Total of both sexes

Kensington is still in process of development by building, but to a moderate extent only compared with past years—1861-70 for example. Owing to the increased value of property, its rateable value in recent times has risen out of proportion to the actual increase in the number of houses. The following Table, brought up to date, exhibits the growth and wealth of the parish since the Metropolis Local Management Act came into operation in 1856 :—

	1856	1884	Gross Increase in 28 years.
Estimated number of Inhabited Houses (as per rate books) ... ..	7,600	21,290	13,690
Population ... ..	57,000	170,000	113,000
Rateable Value of Property ... ..	£308,000	£1,741,294	£1,433,294

The increase in all respects within the last thirteen years, the period over which my official experience extends, is not inconsiderable, as the subjoined figures will show.

	1871	1884	Increase in 13 years.
Estimated number of Inhabited Houses, (as per rate books) ... ..	15,395	21,290	5,895
Population ... ..	121,000	170,000	49,000
Rateable Value ... ..	£935,720	£1,741,294	£805,574

The above figures demonstrate a transcendent growth and speak for themselves: nevertheless attention may be called to the fact that in little more than a quarter of a century the rateable value of property more than quintupled, and that in the last thirteen years the mere increase was more than double the total in 1856. The population and the number of inhabited houses increased nearly threefold in 28 years, the mere increase in the last decade alone attaining the dimensions of a large city.

In the nature of things the material growth of the parish must cease ere many years, and there will be an arrest to the growth of population, as there will be no room for additional houses; but property in some parts of the parish will probably continue to increase in value long after the population shall have become comparatively stationary. Even now the rateable value has attained such proportions as to be exceeded by that of the cities of London, Liverpool, Manchester, and Bristol only. The population of Kensington is to that of London about 1 to  $23\frac{1}{2}$  and the rateable value 1 to  $16\frac{1}{3}$ .

#### MARRIAGES AND MARRIAGE RATE.

The marriages in 1884 were 1,498, and 116 fewer than in 1883. Of these there were celebrated—

By the Church (75·5 per cent. of total marriages) -	1,194
At Roman Catholic places of worship - -	142
At other Nonconformist places of worship - -	44
At the Superintendent Registrar's Office - -	178
	<hr/>
Total	1,498

The marriage rate, *i.e.*, persons married per 1,000 of the population, was 17·6. The marriage rate in the country generally was 15·3 per 1,000—against 14·4, 14·9, 15·1, 15·4, and 15·4 in the five preceding years; the rate declined steadily from 17·6 in 1873 to 14·4 in 1879, which was lower than in any previous year on record: since 1879 the recovery has been slow, but, until 1883, continuous. The marriage rate in London, in 1884, was 17·6, the lowest rate as yet recorded: the rate reached its highest point in 1865, when it was 22·3 per 1,000.

#### BIRTHS AND BIRTH RATE.

The births of 4,394 children were registered in 1884; males, 2,246; females, 2,148: 3,493 in the Town sub-district, and 901

in Brompton, the total being 164 above the number in 1883, but 521 below the decennial average corrected for increase of population. For so small a number of births, we have to go back to 1874, when the population was some 31,000 smaller than in 1884. The birth rate was only 25·8 per 1,000, and 3·2 below the decennial average. It was 27·8 in the Town sub-district, and 20·0 in Brompton, being 7·8 per 1,000 below that of the Metropolis generally (33·6), and 7·7 per 1,000 below that of all England and Wales (33·5). There was one birth to every 38·7 persons living and 104·5 male births to 100 of females. The illegitimate births were 188; males, 103, females, 85. Of these births 168 took place in the Town sub-district, which includes the parish work-house, at which institution, out of a total of 132 births (males 76, and females, 56) 99 were illegitimate. The illegitimate births in the parish formed 4·2 per cent. of total births, as against 4·8 in 1883.

The subjoined Table shows the quarterly numbers of births, of males and females, in each of the sub-districts :—

Kensington Town Sub-district.			Brompton Sub-district.			Grand Total, Whole Parish.
Males.	Females.	Total.	Males.	Females.	Total.	
450	423	873	100	132	232	1105
444	424	868	134	99	233	1101
427	434	861	92	103	195	1056
468	423	891	131	110	241	1132
1789	1704	3493	457	444	901	4394

For particulars respecting annual number of births and birth rates during the decennium, 1874-83, *vide* Tables I. and II. (Appendix).

#### DEATHS AND DEATH RATE.

The deaths in 1884 were 2,638, and 23 more than in 1883: but as the official year covered a period of fifty-three weeks, the weekly average number was smaller than in 1883. The total was 428 below the decennial average corrected for increase of population. In the Town District 2,070 persons died, and in Brompton 568. One hundred and seventy-eight of the deaths occurred at



public institutions outside the parish. The death rate, whole parish, was 15·5 per 1,000 for the period of 53 weeks, but 15·1 only calculated for an ordinary year of 52 weeks. It was the lowest on record; 2·9 per 1,000 below the decennial average, 4·5 per 1,000 below the rate in England and Wales, (19·6), and 5·2 below the Metropolitan rate (20·3), this in turn being 1·9 below the decennial average (22·2). The rate was 16·4 per 1,000 in the Town sub-district, and 12·8 in Brompton: in the male sex, 18·3, (18·7 in 1883), and in the female sex, 13·6, (13·4 in 1883). Taking the parish as a whole, there was one death to 64·4 persons living, (1 in 64·2 in 1883): 1,252 males died out of 68,200, or 1 in 54·4, (1 in 53·3 in 1883), and 1,386 females out of 101,800, or 1 in 73·4, (1 in 74·5 in 1883). The deaths in the first and fourth, or colder, quarters of the year, exceeded the deaths in the second and third, or warmer, quarters by 132: in the four preceding years the difference in favour of the warmer quarters was 240, 120, 355 and 251 respectively.

#### INFANTILE MORTALITY.

The deaths of young children always bear a high ratio to total deaths, but in 1884 this ratio was below the average. The deaths under five years were 1,034, as against 1,114 and 982 in the two previous years, and were equal to 39·2 per cent. on total deaths, and to 23·5 per cent. on registered births, the relative percentages in the Metropolis being 43·3 and 26·2. Under one year of age there were 689 deaths, equal to 26·1 per cent. on total deaths, and to 15·6 per cent. on births registered, the relative percentages in the Metropolis being 25·7 and 15·5.

The deaths of illegitimate children under five years of age were 100, 80 of them in the Town sub-district, as against 114 and 78 in the two preceding years, and were equal to 53·2 per cent. on births registered as illegitimate. Of the 100 children only 25 out-lived their first year, and of these 19 died in the second year. The causes of deaths, as registered, were inanition, premature birth and atelectasis, 29; tubercular diseases, 18; diseases of the lungs, 18;

zymotic diseases, 13; (diarrhoea, 6; whooping cough, 4; measles, 2; and scarlet fever, 1); syphilis, 6; convulsions, 5; suffocation (accidental), 3; wilful murder, 1; other diseases, or not specified, 7. Inquests were held in ten cases. A large proportion of illegitimate children are brought up by hand under the charge of strangers. The evidence of improper feeding, and of the lack of maternal care is but too apparent in the above category of diseases.

*Senile Mortality.*—At sixty years of age, and upwards, there were 607 deaths only, as against 649 and 699 in the two preceding years, being equal to 23 per cent. on total deaths.

The death rate at different periods of life was as follows :—

Under Five years of age ...	56·3	per 1,000 persons living.
Five and under 15 ...	3·4	„ „ „
Fifteen „ „ 25 ...	3·1	„ „ „
Twenty-five „ „ 35 ...	5·0	„ „ „
Thirty-five „ „ 45 ...	9·8	„ „ „
Forty-five „ „ 55 ...	18·0	„ „ „
Fifty-five „ „ 65 ...	24·7	„ „ „
Sixty-five „ „ 75 ...	58·1	„ „ „
Seventy-five „ „ 85 ...	127·5	„ „ „
Eighty-five and upwards ...	202·1	„ „ „

The subjoined Table shews the quarterly numbers of deaths of parishioners, males and females, in each of the sub-districts, including those that occurred in hospitals outside the parish.

Kensington Town Sub-district.			Brompton Sub-district.			Grand Total Whole Parish.
Males.	Females.	Total.	Males.	Females.	Total.	
235	320	555	67	80	147	702
258	222	480	59	80	139	619
236	268	504	58	67	125	629
256	275	531	83	74	157	688
985	1085	2070	267	301	568	2638
The Births were, Males			2246	the Deaths, Males		1252
Females			2148	Females		1386
Total			4394	Total		2638
			2638	Deaths		
			1756	Excess of Births over Deaths		

The subjoined Table shews the death rate in each of thirteen periods of four weeks, corresponding with my monthly reports, and the mean temperature of the air, &c.:—

DATE OF REPORT.	Death-rate per 1,000 living.	Decen- nial Average.	Mean Temperature of the Air.		
			In 1884.	Decen- nial Average.	Above or below Average.
For four weeks to Jan. 26, 1884	16·6	21·0	43·3	39·0	+ 4·3
" " " " Feb. 23, "	16·1	20·6	40·0	39·9	+ 0·1
" " " " Mar. 22, "	17·6	19·8	44·0	42·1	+ 1·9
" " " " April 19, "	14·7	20·6	45·2	45·4	— 0·2
" " " " May 17, "	14·3	17·1	49·5	49·1	+ 0·4
" " " " June 14, "	15·5	16·7	54·9	53·4	+ 1·5
" " " " July 12, "	15·8	15·5	63·0	61·2	+ 1·8
" " " " Aug. 9, "	16·0	17·3	63·2	62·1	+ 1·1
" " " " Sept. 6, "	14·3	14·5	62·8	60·7	+ 2·1
" " " " Oct. 4, "	12·3	13·9	58·8	55·0	+ 3·8
" " " " Nov. 1, "	12·3	16·0	48·5	48·4	+ 0·1
" " " " Nov. 29, "	17·2	18·7	42·4	44·4	— 2·0
For five weeks to Jan. 3, 1885	15·3	19·8	40·0	38·2	+ 1·8
Average (whole year)	15·1	18·0	50·0	49·1	

The subjoined Table is a summary of Table 3 (Appendix) shewing the numbers of deaths of parishioners in 1884, in each Class and Order, according to the Registrar-General's re-arranged classification:—

I. SPECIFIC FEBRILE OR ZYMOTIC DISEASES.					No. of Deaths.
1.	Miasmatic diseases	...	...	...	205
2.	Diarrhoeal	"	...	...	115
3.	Malarial	"	...	...	—
4.	Zoogenous	"	...	...	—
5.	Venereal	"	...	...	15
6.	Septic	"	...	...	33
					368
II.	PARASITIC DISEASES	...	...	...	8
III.	DIETETIC DISEASES	...	...	...	15
IV.	CONSTITUTIONAL DISEASES	...	...	...	587
V.	DEVELOPMENTAL DISEASES	...	...	...	166
VI. LOCAL DISEASES					
1.	Diseases of Nervous system	...	...	...	259
2.	Diseases of Organs of Special Sense	...	...	...	4
3.	Diseases of Circulatory system	...	...	...	196
4.	Diseases of Respiratory system	...	...	...	524
5.	Diseases of Digestive system	...	...	...	151
6.	Diseases of Lymphatic system...	...	...	...	1
7.	Diseases of Glandlike Organs of uncertain use	...	...	...	2
8.	Diseases of Urinary system	...	...	...	73

9.	Diseases of Reproductive system	...	...						
	<i>a.</i>	Diseases of Organs of Generation						23	
	<i>b.</i>	Diseases of Parturition	...	...				9	
10.	Diseases of Locomotive system	...	...					5	
11.	Diseases of Integumentary system	...	...					9	
									1,256
VII.	VIOLENCE	...	...	...	...	...	...		
	1.	Accident or Negligence...	...	...	...	...	...	42	
	2.	Battle	...	...	...	...	...	—	
	3.	Homicide	...	...	...	...	...	1	
	4.	Suicide	...	...	...	...	...	11	
	5.	Execution	...	...	...	...	...	—	
									54
VII.	ILL-DEFINED AND NOT SPECIFIED CAUSES	...							184
	Total	...							2,638

#### ASSIGNED CAUSES OF DEATH.

Having already (at page 17) treated of the deaths from the “principal diseases of the zymotic class,” I now proceed to deal with the mortality from the remaining diseases; but before doing so I think it right to mention that the classification of the causes of death in the “Weekly Returns” of the Registrar-General was considerably modified at the beginning of 1882. “The list of causes, in its new form,” as the Registrar-General stated in his Annual Summary for that year, “is an abbreviation of the much more detailed list which has been drawn up for use in the ‘Annual Reports of Births, Deaths, and Marriages in England,’ and which has been compiled in general accordance with the classification of the Royal College of Physicians. The London deaths, though they are only classified by the abridged list in the Weekly Return, and in the Annual Summary, will be afterwards classified by the full list in the ‘Annual Report of Births, Deaths, and Marriages in England.’” Table 3 in my reports, prior to 1882, was framed upon the lines of the less abridged list of the causes of death contained in the Annual Summary, and it was the basis, to a large extent, of all the other tables. As it was not possible to accept the more abridged list contained in the Annual

Summary for 1882, but, at the same time, desirable to frame Table 3 in close accordance with the more detailed list drawn up for use in the Annual Report, I placed myself in communication with the Registrar-General's Department, and having been favoured with a copy of the new classification, I brought the subject under the notice of the Society of Medical Officers of Health, with the result that the Society decided to revise the tables, which they had framed for the sake of uniformity some ten years previously, and ultimately settled the forms as they appear in the Appendix. It results therefore that Tables 1 to 5 will be found to differ to some extent from similarly numbered tables in the annual reports prior to 1882. With these preliminary remarks, I pass on to deal with the remaining diseases included in the "Class" of

SPECIFIC FEBRILE OR ZYMOTIC DISEASES, which comprises six "Orders," the first and second "Miasmatic" and "Diarrhoeal," including the diseases already dealt with.

Order 3, "Malarial Diseases," includes *Remittent Fever* and *Ague*, and Order 4, Zoogenous diseases, includes *Cowpox* and *Effects of Vaccination*, *Hydrophobia*, *Glanders*, *Splenic Fever*, &c., but no deaths were registered from any of these causes.

Order 5, "Venereal Diseases," includes *Syphilis*, *Gonorrhœa*, and *Stricture of the Urethra*. Syphilis was the only fatal disease registered in 1883, the deaths, as registered, being 15—viz., 12 in the Town sub-district, and 3 in Brompton: 14 of the deaths were of children under five years of age. If the truth were known, it would probably appear that this Protean malady was accountable, directly or indirectly, for a much larger number of deaths.

Order 6, Septic Diseases. This order comprises *Erysipelas*, *Pyæmia*, *Septicæmia*, and *Puerperal Fever*, the total deaths registered being 33.

*Erysipelas* was the cause of 11 deaths, 8 of them in the Town sub-district, and 2 of them of children under one year of age.

*Pyæmia* and *Septicæmia* were the causes of 8 deaths, two of them in the Brompton sub-district.

*Puerperal Fever* was the registered cause of 14 deaths, as against 26 in 1883, 10 of them in the Town sub-district. Four

of the deaths were of women between 15 and 25 years of age, 7 between 25 and 35, and 3 between 35 and 45. In addition to these 14 deaths, 9 deaths, seven of them in the Town sub-district, were registered as having occurred in "childbirth," as against 3 in 1883. The distinction between these two classes of cases is, that whilst puerperal fever is a communicable disease depending on "blood poisoning," deaths registered as caused by childbirth simply, are, so to say, accidental, a common cause being hæmorrhage ("flooding"). The total deaths registered as having been caused by the diseases and accidents associated with parturition (23) were equal to 0.52 per cent. on registered live births.

#### CLASS 2.—PARASITIC DISEASES

Includes *Thrush and Other Vegetable Parasitic Diseases*; 7 deaths, all of them in the Town district, and under one year of age, and "*Worms, Hydatids, and other Animal Parasitic Diseases*," one death, from hydatids.

#### CLASS 3.—DIETETIC DISEASES

Were the causes of 15 deaths, 11 of them in the Town sub-district. *Want of breast milk* was the cause of one death. To *Scurvy* no death was assigned. *Delirium tremens* was the cause of one death. *Chronic alcoholism* was the registered cause of 13 deaths, ten of them in the Town sub-district. It is scarcely necessary, perhaps, to remark that, if all the deaths due, directly and indirectly, to the immoderate use of intoxicating liquors could be ascertained, "Alcoholism" would occupy a much more prominent position in the "Bills of Mortality;" but many deaths due to the abuse of alcohol get certified, and therefore are classified, as due to visceral and degenerative diseases, secondary in their character, but which have been caused or aggravated by "drink." Man's ingenuity in the discovery of alcohol is accountable for a large share of the misery of his race. "Drink" is the fruitful parent of vice and crime, as well as being the cause of

much bodily sickness, mental trouble, moral degradation, ruin, and of many premature deaths : it fills our prisons and workhouses, our asylums and hospitals, our cemeteries, and, though happily to a decreasing extent, our National Exchequer !

#### CLASS 4.—CONSTITUTIONAL DISEASES.

This important Class comprises the causes of 587 deaths (= 22·2 per cent. of total deaths) ; including 142 of children under the age of 5 years ; 474 in the Town sub-district, and 118 in Brompton.

*Rheumatic Fever and Rheumatism of the Heart* caused 12 deaths ; *Rheumatism* 10. In fatal cases of rheumatic fever the immediate cause of death, not unfrequently, is disease of the heart arising in the course of the malady ; and of the deaths certified from heart disease at later periods of life, not a few might justly be ascribed to rheumatism as the primary cause. The connexion between the two diseases is either overlooked or, it may be, unknown to the certifying practitioner. In the new classification the deaths due to rheumatic disease involving the heart are distinguished from the deaths due to rheumatism without such complication. *Gout* was the cause of 9 deaths and *Rickets* of 5.

*Cancer, Malignant Disease*, was accountable for 117 deaths ; 87 in the Town sub-district, and 30 in Brompton. The deaths from cancer in the country generally are on the increase. The deaths in Kensington from this cause in the previous ten years were 67, 74, 69, 88, 79, 95, 90, 112, 92, and 128. The deaths in the Brompton sub-district are usually more numerous, proportionally to population, than in the relatively poorer Town sub-district. Cancer, in fact, is quite as prevalent in well-to-do people, more prevalent, perhaps, than amongst the poorer classes. The parts of the body most generally affected are the viscera or internal organs ; in women, the uterus and the breast ; the malady, moreover, being most common in later life. Ninety-nine of the deaths took place at ages above 45. It may be well to mention that in Table 8 (Appendix), the deaths assigned to cancer are

classified to cancer irrespective of the question whether any other disease was named in the medical certificate, and of the question whether cancer was the *immediate* cause of death.

*Purpura*, *Hæmorrhagic Diathesis*, was not among the fatal diseases in 1884; *Anæmia*, *Chlorosis*, and *Leucocythæmia* were the causes of five deaths; *Glycosuria*, *Diabetes Mellitus*, of 16 deaths, three of them in the Brompton sub-district.

The remaining diseases in this Class belong to the group generically known as

TUBERCULAR, and they are amongst the most important with which sanitarians have to deal, the degree to which they prevail in a given district being regarded, in some sort, as a test of the healthiness or otherwise of the population. Generally hereditary, these diseases are nevertheless susceptible of considerable amelioration under improved sanitary arrangements. *Scrofula* is unknown in Hygieapolis! Sunlight and pure air; efficient drainage and its corollary, a dry sub-soil; good food, warm clothing, and temperance in all things, are powerful antidotes to the bane of tubercle, which is fostered by squalor and dirt, by cold and nakedness, by vice and intemperance, by the want of the proper necessities of life, by over-crowding in ill-constructed, unventilated, and sewage-tainted houses, and, in a word, by whatever is inimical to the maintenance of a typical condition of health. The cases that occur among the well-to-do classes are usually traceable to the influence of heredity; modern researches, however, which have thrown great light on the origin of tubercle, raise a presumption that *tuberculosis* may be an infectious disease, a specific fever of slow progress with a veiled resemblance to other specific eruptive fevers: we are encouraged to hope, therefore, that a remedy may ultimately be found for this great scourge of the human race. Tubercular diseases were the registered causes of 413 deaths viz., 343 in the Town sub-district, and 70 in Brompton; 137 of the deaths being of children under 5 years of age. The numbers in the four quarters of the year respectively were 100, 97, 101 and 115; 215 in the winter and 198 in the summer quarters. In a few instances "*phthisis*" was returned as the



cause of death in the earliest infancy, a period of life at which the tubercular diathesis commonly manifests itself in other parts of the body than the lungs, *e.g.*, the brain and bowels. Such deaths have been classified in Table 3, with those certified from *tuberculosis* and other forms of *scrofula*, the total being 47, (of which 30 occurred under five years of age), including 8 registered in the Brompton sub-district. *Tabes Mesenterica*, popularly known as "consumption of the bowels," was the cause of 67 deaths, 2 of them only in Brompton; 64 under five years of age, and 47 under one year. *Tubercular Meningitis* and *Hydrocephalus*, (water on the brain), were the causes of 51 deaths, 10 of them in Brompton, and 43 under five years of age. *Phthisis*, popularly known as "decline," or "consumption," was the cause of 248 deaths, 16 of them between 5 and 15 years of age; and 228 between 15 and 65, viz., 34, 65, 70, 40, and 19, in the five decades respectively: four deaths were registered at ages over 65. The quarterly numbers were 60, 61, 52 and 75; of the total, 198 belong to the Town sub-district and 50 to Brompton. The deaths from tubercular diseases were, as usual, but not to the customary extent, disproportionately more numerous in the Town sub-district than in Brompton, a fifth of them only having occurred in Brompton, which contains more than a fourth of the population, a fact which may be explained, in part, by the relatively small proportion of children, and of the poorest classes, in this sub-district. It is more than probable that the deaths ascribed to these causes do not comprise all the deaths really due to diseases indicating the tubercular diathesis, and that many deaths of young children classified to such causes as *premature birth*, *atrophy*, *debility*, *convulsions*, &c., were primarily due to the scrofulous taint. In many instances some other disease, *e.g.*, of the lungs, as bronchitis, pneumonia, &c., is associated with phthisis in medical certificates of the cause of death, but all such associated diseases have been disregarded in the preparation of Table 3, for when *phthisis* was returned the death is classified to that heading, it being assumed that the tubercular diathesis was underlying the other disease, and was in fact the primary cause of death.

## CLASS 5.—DEVELOPMENTAL DISEASES.

In this Class, *Premature Birth* was the assigned cause of 65 deaths; *Atelectasis* of 8, and *Congenital Malformation* of 8. *Old Age* was the registered cause of 85 deaths; all but two at ages over 65. Between 75 and 85 there were 47 deaths, and 17 at ages above 85. The total deaths in this class were 166, viz., 118 in the Town sub-district, and 48 in Brompton.

## CLASS 6.—LOCAL DISEASES.

The diseases in this Class, containing eleven Orders, named after the systems or organs to which the diseases relate, were accountable for 1256 deaths, or 47·5 per cent. of the deaths from all causes; 978 were registered in the Town sub-district, and 283 in Brompton; 379 were of children under five years of age.

1.—NERVOUS SYSTEM.—Diseases of the nervous system were the registered causes of 259 deaths (as against 288 in 1883), viz., 218 in the Town sub-district, and 41 in Brompton; 70 of the deaths were of children under five years of age. The quarterly numbers were 82, 58, 61, 58. *Inflammation of the Brain or Membranes* was the cause of 9 deaths; *Insanity and General Paralysis of the Insane* of 6; *Epilepsy* of 9; *Disease of Spinal Cord, Paraplegia and Paralysis Agitans* of 6; “*Other Diseases of Nervous System*” of 22. The principal diseases, however, were *Apoplexy, Softening of Brain, Hemiplegia, and Brain Paralysis*, which together account for 136 deaths, 21 of them in Brompton, and 122 at ages above 45. *Convulsions* was the cause of 68 deaths, all under five years of age, and 10 only in Brompton; irrespective of the deaths referred to *Epilepsy*. Convulsions as a cause of death is frequently associated, in medical certificates, with definite diseases, and with “teething.” The convulsions being a symptom only, such deaths are classified to the primary disease named, or to dentition, as the case may be. *Laryngismus Stridulus* (spasm of the glottis), included in the new classification with diseases of the nervous system, was the registered cause of

3 deaths of children under five years of age, who were "found dead in bed." The name of the disease, as a cause of death, has little more meaning than "want of breath; and, indeed, want of breath is the cause of death from spasm of the glottis. In the absence of other apparent cause of death, the pre-existence of spasm of the glottis may have been inferred, but it is quite possible, to say the least of it, that some of the children had been "overlaid," i.e., suffocated—a remark equally applicable to deaths attributed to *convulsions*, when the deceased persons had been found "dead in bed." The cause of death in such cases—whether spasm of the glottis or convulsions be returned—can be only guessed at when the child has not been seen to die, for examination after death would not disclose the occurrence of spasm during life, and there is no pathological condition which would enable one to say positively that a child had suffered, still less that it had died, from convulsions.

2. The second Order comprises the DISEASES OF THE ORGANS OF SPECIAL SENSE (*e.g.*, of Ear, Eye, Nose); four deaths were classified to these causes.

3. CIRCULATORY SYSTEM.—The deaths due to diseases of the organs of circulation, heart and blood vessels, were 196, as against 179 in 1883; 145 were registered in the Town sub-district, and 51 in Brompton. The quarterly numbers were 41, 62, 46 and 47. To specified forms of disease 47 deaths were assigned, viz., *Pericarditis* 6; *Acute Endocarditis* 5; *Valvular Diseases of Heart* 27; *Aneurism* 7; *Embolism and Thrombosis* 2. *Other Diseases of Heart*, nature not specified, caused 141 deaths. *Other Diseases of Blood Vessels* were the causes of 8 deaths.

4. RESPIRATORY SYSTEM.—The deaths from the diseases of the chest, *phthisis* being excluded, were 525, 60 fewer than in 1883, and equal to 19·8 per cent. on total deaths. Of this number 416 were registered in the Town sub-district, and 109 in Brompton. The quarterly numbers were 173, 123, 49, and 180; 353 in the first and fourth, or colder quarters, and 172 in the second and third, or warmer quarters. The deaths under five years of age were 250 = 47·7 per cent., and at 55 and upwards

173, = 33 per cent. of the whole number. These diseases are thus seen to be most fatal at the extremes of life; but the prevalence of them varies considerably in different years, depending mainly on the degree of cold in winter, and the general character of that season: they are always most fatal when fog, especially "London fog," is associated with low temperature. The several fatal diseases were *Laryngitis*, 7 deaths; *Croup* (transferred in the new classification from miasmatic diseases), 21; *Emphysema*, *Asthma*, 9; *Pleurisy*, 12; *Bronchitis*, 328; *Pneumonia*, 120; and *Other Diseases of the Respiratory System*, 27. *Bronchitis* and *Pneumonia*, therefore, and they often occur together, were accountable for 448 deaths (including 213 under five years), and of this number 79 only were registered in Brompton.

5. DISEASES OF DIGESTIVE SYSTEM.—The diseases of the organs concerned in digestion were the causes of 151 deaths, 107 in the Town sub-district, and 44 in Brompton; 46 of them under five years of age. In the new classification, *Dentition* is included in this Order; it was the cause of 25 deaths under five, 16 of them under one year. *Sore Throat and Quinsey*, (the latter disease transferred in the new classification from miasmatic diseases), were the causes of 5 deaths. *Diseases of Stomach* of 16 deaths; *Enteritis* of 13; *Obstructive Diseases of Intestines* of 14; and *Peritonitis* of 12. *Cirrhosis of Liver* was the registered cause of 25 deaths; *Jaundice and Other Diseases of Liver* of 29; and *Other Diseases of Digestive System* of 12.

6. DISEASES OF LYMPHATIC SYSTEM, *e.g.*, of Lymphatics and of Spleen; one death only was registered.

7. DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE (*e.g.*, *Bronchocele*, *Addison's Disease*); two deaths.

8. DISEASES OF URINARY ORGANS.—Of the 73 deaths assigned to these causes, 48 were registered in the Town sub-district, and 25 in Brompton: one only was of a child under five years of age. The diseases were, *Nephritis*, 3 deaths; *Bright's Disease*, (*Albuminuria*), 35; *Diseases of the Bladder, or of the Prostate*, 6; and *Other Diseases of Urinary System*, 29.

9. DISEASES OF REPRODUCTIVE SYSTEM.—(a) Of organs of generation : male organs, no deaths ; female organs, 23, (b) Of parturition, 9 deaths, viz., from *Abortion* 2, *Placenta Prævia*, (flooding), 2, *Other Accidents of Childbirth*, 5.

10. DISEASES OF BONES AND JOINTS.—Five deaths : *Caries*, *Necrosis*, 4 ; *Arthritis*, 1.

11. DISEASES OF INTEGUMENTARY SYSTEM.—Nine deaths, viz., *Carbuncle*, *Phlegmon*, 4 ; “ *Other Diseases*,” 5.

#### CLASS 7.—DEATHS FROM VIOLENCE.

Fifty-four deaths, including 24 under five years of age (20 under one year) are distributed over the four Orders comprised in this Class ; 13 of them belonging to the Brompton sub-district.

1. ACCIDENT OR NEGLIGENCE.—Total deaths 42, including 8 in Brompton, and 23 under five years of age ; viz., from *Fractures and Contusions*, 17 ; *Gunshot wounds*, 1 ; *Burn*, *Scald*, 3 ; *Drowning*, 1 ; *Suffocation*, generally of infants “ overlaid,” 18, including 17 under one year ; “ *Otherwise*,” 2.

2. HOMICIDE.—*Murder*, 1 ; of a newly born child, by some person unknown.

3. SUICIDE.—Of the 11 suicidal deaths 7 occurred in the Town sub-district, and 4 in Brompton. *Poison* was the lethal agent in 5 cases ; *Hanging* in 2 ; *Cut*, *Stab*, in 3 ; *Gunshot Wound* in 1.

#### CLASS 8.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.

This Class has assumed considerable importance in the new classification, owing to the transfer of a certain number of ill-defined causes from different positions in the old classification. It includes the causes of 184 deaths, 160 and 24 in the Town and Brompton sub-districts respectively, including 150 under five years of age. The diseases named are—*Dropsy*, 5 deaths ; *Debility*, *Atrophy*, *Inanition*, 137, (all but two under five years, and 126 under one year) ; *Mortification*, 7 ; *Abscess*, 6 ; and *Hæmorrhage*, 7 ; *Causes not specified or ill-defined*, 22.

## DEATHS IN PUBLIC INSTITUTIONS.

The only "large public institution" within the parish in which we are directly interested, is the Parish Infirmary and Workhouse, situated in the Town sub-district. There are several minor public, or *quasi*-public institutions, but, with one exception, they do not furnish occasion for special notice. The excepted institution is St. Joseph's House, Portobello Road, Notting Hill—a Roman Catholic Home for aged poor persons of both sexes, brought from various parts, principally from Ireland—but the Registrar-General does not regard it as a "public institution." The deaths of non-parishioners at the Marylebone Infirmary, Notting Hill (456), and at the Brompton Consumption Hospital (148), are excluded from our statistics, but will furnish occasion for a few remarks later on. The deaths of parishioners registered at the Parish Infirmary and Workhouse (273), and at out-lying institutions (178), were 351, or 17·1 per cent. on total deaths, the percentage proportion of deaths in public institutions in the Metropolis generally being 20·5. The addition of the deaths at the Marylebone Infirmary and Brompton Hospital to those at the Parish Infirmary, would raise the percentage in Kensington to 40·0.

THE PARISH INFIRMARY AND WORKHOUSE.—I am indebted to Mr. H. Percy Potter, Medical Superintendent of the Infirmary, and Medical Officer to the Workhouse, for the statistics of mortality at these important institutions, the former being, to all intents and purposes, as indeed its name would imply, a hospital; it contains over six hundred beds. The deaths registered at these institutions in 1884 were 273, including a few of non-parishioners, as against 273, 307, and 322 in the three previous years. The quarterly numbers were 72, 56, 73, and 72, so that 144 deaths occurred in the first and fourth (or cold) quarters, and 129 in the second and third (or warm) quarters. The deaths of males were 143, and of females 130. The 273 deaths were equal to 10·3 per cent. on total deaths of parishioners. The ages at death were, under one year, 32; between one year and 60 years, 130; and at 60 years and upwards, 111. The greatest

age at date of death was that of a female, who was believed to have attained the patriarchal age of 100 years. Three inquests were held: in one case the verdict shewed the cause of death to have been "suffocation" (self-inflicted); in the other two cases the deaths were returned as due to "natural causes."

## SUMMARY OF CAUSES OF DEATH.

	Under one year.	Between one year and sixty.	Sixty and upwards.	Total.
Nervous System, Diseases of ...	7	8	10	25
Circulatory ,, ,, ...	—	14	18	32
Respiratory ,, ,, (including Phthisis) ... ..	3	66	33	102
Digestive System, Diseases of ...	2	9	4	15
Urinary ,, ,, ...	—	7	8	15
Measles ... ..	—	3	—	3
Enteric Fever ... ..	—	1	—	1
Diarrhœa... ..	—	1	2	3
Chicken Pox ... ..	1	—	—	1
Erysipelas ... ..	—	—	3	3
Septicæmia ... ..	—	1	—	1
Pyæmia ... ..	—	—	1	1
Syphilis ... ..	—	3	—	3
Cancer ... ..	—	7	12	19
Tubercular Diseases (excluding Phthisis) ... ..	14	6	2	22
Premature Birth ... ..	1	—	—	1
Inanition ... ..	3	—	—	3
Want of Breast Milk ... ..	1	—	—	1
Privation ... ..	—	1	—	1
Old Age ... ..	—	—	12	12
Lymphadenoma ... ..	—	1	—	1
Gangrene... ..	—	—	3	3
Chronic Alcoholism ... ..	—	1	1	2
Syncope ... ..	—	—	2	2
Suffocation ... ..	—	1	—	1
<b>Totals ... ..</b>	<b>32</b>	<b>130</b>	<b>111</b>	<b>273</b>

OUTLYING PUBLIC INSTITUTIONS.—By virtue of an arrangement between your Vestry and an official in the Registrar-General's Department I receive a weekly return of the deaths of Kensington parishioners in public institutions outside the Parish: In Table 3 (Appendix) all such deaths, 178 in number, are included. The deaths occurred in the following institutions, viz.:—

St. George's Hospital .....	44	Childrens' Hospital (Paddington) .....	3
St. Mary's .....	37	London Fever Hospital .....	3
West London .....	11	„ Small-Pox Hospital .....	1
Charing Cross .....	5	Asylums Board Hospitals :—	
University College, .....	5	Western .....	15
St. Thomas's .....	3	South-Western .....	10
Royal Free .....	2	<i>Castalia</i> (Ship) .....	2
Middlesex .....	2	Darent Camp .....	1
St. Bartholomew's, .....	2	Temperance Hospital .....	1
London .....	1	Bethlem .....	1
Guy's .....	1	Samaritan .....	1
Westminster .....	1	German .....	1
Brompton Consumption Hospital		Military Hospital (Westminster)...	1
(south branch) .....	3	“Home” Hospital.....	1
Cancer Hospital (Chelsea) .....	5	Bolingbroke House Hospital .....	1
Women's .. (Soho Square) ...	1	Mildmay Memorial .....	2
„ „ (Fulham Road)...	3	St. Raphael's .....	1
Queen Charlotte's Hospital .....	2	St. Peter's Home, Kilburn .....	1
St. John and St. Elizabeth's Hos-		Paddington Workhouse .....	1
pital (Great Ormond Street) ...	1		—
Childrens' Hospital (Great Ormond		Total.....	178
Street) .....	2		

ST. JOSEPH'S HOUSE, PORTOBELLO ROAD.—The deaths at this quasi-public institution are included in Table 3 (Appendix). They were 30 in number: males 8, and females, 22. All of the deaths save two (one of an inmate and one of a “sister”) occurred at ages over 60, 15 of them at ages over 70. Fourteen of the deaths were of persons who had been imported from other metropolitan parishes; nine of the deceased had previously resided in Ireland, two on the Continent, and two in the Provinces. The previous residence in three cases was not stated. The causes of death were: diseases of the nervous system, 10; diseases of



the respiratory and circulatory systems, 12; phthisis, 2; kidney disease, 2; cancer, old age, ulcer, and anæmia, 1 each.

THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—The deaths at this institution, or rather in that part of it—the original hospital—situated in Kensington (a “south branch” having been established on the south side of the Fulham Road, in the parish of Chelsea) were 148, viz.: males, 87, and females, 61: 25, 31, 42 and 50 in the four quarters respectively. The ages at death were: under 20 years (youngest 13), 24; between 20 and 40, 95; between 40 and 60 (oldest 58), 29. Nine of the deaths were of parishioners, and are included in Table 3 (Appendix); the remaining deaths, of non-parishioners, are excluded from that table. Eighty-two of the deceased had previously resided in the metropolis, 19 in the suburbs of London, and 98 in the Provinces. The causes of death, as registered, were: *Phthisis* (consumption or decline) alone, in 122 cases, phthisis, associated with other forms of tubercular disease, in six cases; phthisis, with other lung or heart diseases, in seven cases, heart and lung diseases in ten cases, other diseases in three cases.

MARYLEBONE INFIRMARY, NOTTING HILL.—At this hospital, which is under the control of the Guardians of the Poor of the Parish of St. Marylebone, and which is even larger than our own Parish Infirmary, 454 deaths of non-parishioners were registered, all of which, for the reasons already stated, are excluded from Table 3 (Appendix).

#### DEATHS NOT CERTIFIED.

Ten deaths (just half of the number recorded in 1883) were returned as “not certified,” the deceased persons not having been attended in the last illness by any registered medical practitioner. The proportion of deaths not certified to total deaths was, in London, 1·3 per cent., in Kensington, 0·3 per cent. in all England and Wales, 8·6 per cent. None of the deaths uncertified in Kensington occurred in the practice of unregistered male

practitioners. Five of the deaths were registered on the information of midwives, the alleged cause of death being *premature birth*, and the ages at death ranging from one day to one week. In the remaining five cases there had been "no medical attendant," and the causes of death, as registered were: *apoplexy* (in the case of a merchant, aged 63, who died in a cab); *eczema*, *bronchitis*, *convulsions*, (daughter of a carpenter, aged 6); *premature birth*, (daughter of a labourer, aged 14 hours); *convulsions*, (son of a platelayer aged 4 months). The cause of death of the wife of a labourer, aged 46, which occurred at the Casual Ward, Mary Place, was not stated.

The subject of uncertified deaths has, on more than one occasion, engaged the attention of the Society of Medical Officers of Health, which has adopted the following resolution:—

"That all cases of uncertified death should be reported by the local registrar of births and deaths to the Coroner, who should, when there is no *prima facie* ground for holding an inquest, direct such cases to be investigated by a registered medical practitioner."

It had been suggested that the duty of making the proposed investigation should devolve on the Medical Officer of Health as a part of his ordinary work, but the Society did not adopt this view.

Of all the unsatisfactory arrangements connected with the subject of uncertified deaths, perhaps the most indefensible is that which practically makes the Coroner's Officer the *de facto* judge, in a doubtful case, whether an inquest should be held. The Society, at my instance, adopted the following further resolution bearing on the subject:—

"That the present system of investigation of deaths referred to a Coroner, viz., by an officer having no special qualification for the discharge of the duty, is unsatisfactory."

## INQUESTS.

One hundred and sixty-three inquests, 136 in the Town Sub-districts and 27 in Brompton, were held, irrespective of a few held on non-parishioners. The subjects were males in 85 cases, and

females in 78 cases, the ages at death being, under five years, 70, including 48 under one year; between 5 and 60 years, 64; and at sixty years and upwards, 29. The cause of death in 112 cases is *stated* to have been ascertained by *post-mortem* examination. Probably the number of such examinations was somewhat greater.

THE DEATHS FROM VIOLENCE were 50, of which 10 belong to the Brompton sub-district.

The grounds for holding inquests were, usually, the suddenness of death, or the fact that death had been caused by violence. In many cases the Coroner's returns shew that the deceased persons had been "found dead."

The causes of death may be classified as follows:—

Deaths caused by disease	-	-	-	113
Violent deaths—				
Accidental	.	-	-	38
Suicidal	-	-	-	11
Homicidal	-	-	-	1
				50
				<hr/>
				163

The fatal diseases may be classified thus:—

Diseases of the brain and nervous system	-	25
,,   ,,   organs of respiration and circulation	-	57
,,   ,,   ,,   ,, digestion	-	3
Tubercular diseases	-	7
Zymotic       ,,	-	2
Other       ,,	-	14
Alcoholism, 1; Congenital debility, 2	-	3
Causes not stated	-	2
		<hr/>
		113

The violent deaths were caused as follows:—

Accidents:

Suffocation (including 16 of infants under one year)	-	17
Gun Shot Wounds	-	1

Burns	-	-	-	-	-	-	1
Scalds	-	-	-	-	-	-	2
Drowning	-	-	-	-	-	-	1
Run over by a cart	-	-	-	-	-	-	1
Kicked by a horse	-	-	-	-	-	-	1
Falls under various circumstances	-	-	-	-	-	-	10
Blow on head : no evidence how caused	-	-	-	-	-	-	2
Hæmorrhage from navel	-	-	-	-	-	-	1
Rupture of stomach	-	-	-	-	-	-	1
Suicide : By hanging	-	-	-	-	-	-	2
By poison	-	-	-	-	-	-	5
By cut-throat	-	-	-	-	-	-	3
By pistol shot	-	-	-	-	-	-	1
Wilful Murder, of newly-born infant	-	-	-	-	-	-	1

The suicidal deaths comprise eight of males and three of females. The poisons employed were oxalic acid in three cases, prussic acid and corrosive sublimate in one each.

Among the deaths described as "sudden," there were, as usual, many from ordinary and curable visceral diseases, and it is impossible to resist the conviction that the neglect to obtain medical assistance for the deceased was culpable, inasmuch as the illnesses must often have extended over many days, and been attended with obvious symptoms of a more or less serious and painful nature. The mere finding of the "cause of death" in such cases, seems scarcely to satisfy the requirements of justice, considering that the death of any person—but particularly of one very young or very aged—from such diseases as pneumonia, bronchitis, &c., when there has been no medical attendance, raises a presumption of neglect which would justify a verdict of "manslaughter," just as much as in the case of the "peculiar people," who, whilst treating their sick with care in other respects, refuse, on so-called "conscientious" grounds, to employ medical assistance, and who, as a consequence of such refusal, death having ensued, have on several occasions been found guilty of manslaughter.

## METEOROLOGY.

The mean temperature of the air at Greenwich, in 1884, was 50°.7 Fahrenheit, or 1.8 above the average of 43 years ; the means in the four quarters respectively being 48.4, 52.5, 62.7, and 44.1. The highest reading by day (94.2) was registered in the week ending August 16th, and the lowest reading by night (24.5) in the week ending November 29th, the means of the highest weekly readings by day, in the four quarters respectively, being 55.0, 69.2, 83.1, and 55.0, and of the lowest readings by night 32.2, 39.1, 48.5, and 32.3. The hottest week in the year was that which ended on August 16th (mean temperature, 68.9), and the coldest week that which ended January 3rd, 1885 (mean temperature, 33.2). August was the hottest month (mean temperature, 65.3), and December the coldest (mean temperature, 41.0). August exhibited the greatest range in temperature, viz., 48.4—from 94.2 to 45.8, and January the smallest range, viz., 24.1—from 55.3 to 31.2. The dryness of the atmosphere, *i.e.*, the difference between dew-point temperature and air temperature was 6.3, or 0.7 above the average of 43 years. Rain fell on 150 days, the total amount registered in the year being 18.05 inches ; the average of 70 years being 22.38 inches. Most rain fell in December (2.54 inches), and least in August (0.67). The means of the readings of the barometer were 29.813 inches. The means of November, 29.978, and of April, 29.645, being respectively highest and lowest. The relative proportion of wind was : north, 76 ; east, 82 ; south, 85 ; and west, 123.

## VACCINATION.

Table X. (Appendix) is a return respecting the vaccination of children, whose births were registered in 1884, compiled by Mr. Shattock, the Vaccination Officer, whose energetic discharge of the duties of his appointment it is again my pleasing duty to

recognise. The return shows a loss of 3·9 per cent. in the cases, as against 3·3 and 4·0 in the two previous years, in column 10, indicating loss "from removal of children to places out of parish unknown, or which cannot be reached, and cases not having been found." In the Metropolis, as a whole, the loss is considerably greater.

The Guardians, as the vaccination authority, instituted a partial house to house visitation last year, for the double purpose of discovering unvaccinated children, and of urging the desirability of revaccination in every case, when it has not already been successfully performed, in persons over twelve years of age, who have not had small-pox. It was arranged that the vaccination stations should be open for a time on one night in each week for revaccination only, in addition to the usual arrangements. Vaccination by private medical practitioners is seriously hampered by the difficulty of obtaining lymph. The Guardians also issued handbills and posters for information in regard to vaccination and revaccination, and in the handbill they seized the opportunity of reiterating some of the advice in regard to sanitary matters which your Vestry supplied to every householder in the parish in 1883, in the form of "Suggestions for Preventing the Spread of Infectious Diseases," &c.

The Poor Law Guardians are, as I have just said, the local authority for carrying out the provisions of the Vaccination Acts, and in this parish the Guardians have always supported their officer in the discharge of his responsible duties, so that the powers of the Acts have been fully exercised. Some persons are of the opinion that it would be well if the administration of the Vaccination Acts were vested in the Sanitary Authority. A communication on this subject was addressed last year by the Vestry of St. James, Westminster, to the several Vestries and District Boards. The Vestry of St. James stated their opinion that the Acts might be "more efficiently administered if the appointment of Public Vaccinators and Vaccination Officers were vested in the Local Sanitary Authority, instead of in the Poor Law Guardians, and that vaccination could be enforced more readily if entirely dissociated from the Poor Law."

The Vestry added that they had brought the subject under the notice of the Local Government Board, and suggested that at the first convenient opportunity a Bill should be introduced into Parliament for transferring the administration of the laws relating to Vaccination, so far at least as the Metropolis is concerned, from the Poor Law Guardians to the various Local Sanitary Authorities; they requested your Vestry, if able to concur in the views above set out, to make similar representations to the Government. The communication was referred to the Works, Sanitary, and General Purposes Committee for consideration, and ultimately the St. James' Vestry was informed that your Vestry agreed as to the desirability of dissociating Public Vaccination from Poor Law Administration, and concurred in the recommendation that Public Vaccinators and Vaccination Officers should be appointed by the Local Sanitary Authority; but being of opinion that the general control and administration of the Vaccination Laws in the Metropolis should be vested in a Central Board, elected by and representing the Vestries and District Boards—a Board which should be the Hospital Authority also—and there being as yet no such Board in existence, your Vestry had come to the conclusion that no useful action in the matter could be taken at the present time.

With regard to the protection against small-pox afforded by vaccination—differing in degree as this does according as the vaccination is more or less “successful”—it should be unnecessary to say anything in these days; but the perverse pertinacity with which a certain number of misguided persons decry this most beneficent of medical discoveries shows no sign of abatement, and as their teaching is well calculated to prejudice the general public against the wise compulsion enforced by Parliament, I do not hesitate to refer again to the pregnant facts in regard to the efficacy of vaccination as a protection against small-pox submitted to the Local Government Board by their Medical Officer, Dr. Buchanan, in his report for 1881. Dr. Buchanan, first of all, refers to the relative mortality from small-pox in the vaccinated, and in the unvaccinated, inhabitants of London, which formed the

subject of a memorandum which he submitted to the Board in June, 1881, and contained the following Table :—

Comparative Small-pox Death Rates among Londoners, Vaccinated and Unvaccinated respectively, for the 52 weeks ended 29th May, 1881.

Death rate of people of subjoined ages.	Per million of each age of the vaccinated class.	Per million of each age of the unvaccinated class.
All ages ... ..	90	3,350
Under 20 years ...	61	4,520
Under 5 years ...	40½	5,950

But, mainly, he limits the scope of his further enquiry on the subject, to the mortality from small-pox among children under the age of ten years, for the sufficient reason that the limit embraces the period within which vaccination has been efficiently compulsory.

The population of London under ten was 916,784, on Census night, 1881, of whom, in round numbers, 55,000 were unvaccinated and 861,000 were vaccinated. In 1881 some 782 small-pox deaths occurred among the 55,000 unvaccinated, as against 125 among the vaccinated. "Upon equal numbers of the two classes, therefore, the mortality from small-pox among the unvaccinated was about a hundredfold the mortality from small-pox among the vaccinated. This degree of protection was given to children under ten, by the average current vaccination of London." \*

"If the London children under ten who were unvaccinated, had had the protection which the current vaccination gives, not 782 of them, but at the outside *nine*, would have died of small-pox during the year.

"If the 861,000 vaccinated children had died at the rate of the 55,000 unvaccinated, we should not now be considering 125

---

\* "The power of a thorough vaccination to protect against death from small-pox," (it is stated), "is at least ten times greater than the power of much that passes under the name of vaccination."



small-pox deaths, and how can they be reduced, but we should be confronted with an additional 12,000 and more deaths from small-pox, occurring during the year in the London population under ten years of age."

This "great saving of children from death by small-pox can only have been due to vaccination, and largely to the operation of vaccination law."

It must be remembered, moreover, that the mortality from small-pox in vaccinated children, small though it be, is unduly high, for the reason, doubtless, that so much of the vaccination which passes current is imperfect, there still being many medical men who systematically evade the spirit of the law, and disregard the teachings of experience, as summed up in the instructions issued by the Board for the guidance of public vaccinators. A prime condition of vaccination, "successful" from the official standpoint, is the production of four typical vesicles; but we are told that there is a "form of private vaccination that offers itself in competition with public vaccination, and which parades its inefficiency as a reason for its acceptance by ignorant people. Its professors say to young mothers, 'Do you come to me and I won't hurt your baby; I'll make only one place on its arm, not four, as those public vaccinators do.'" It is not surprising, therefore, to learn that although the vaccination is done in almost equal proportions by public vaccinators and by private practitioners, the proportion of deaths from small-pox, among children under ten, is far greater among the patients of private practitioners than among children vaccinated by the public vaccinators; and this despite reasons, to which Dr. Buchanan refers, which might fairly lead us to expect a quite different result, were it not for the admittedly superior average quality of vaccination as performed by public vaccinators.

Here, then, we have a record of the "saving of 12,000 lives, by vaccination, to children under ten years of age" in the one year, 1881, when the total mortality from small-pox did not amount to one-third of the mortality in the epidemic of 1871. This saving of life is, I believe, justly attributed to the operation of the

Vaccination Acts of 1867 and 1871. It only needs further to be mentioned that in the "two periods of ten years immediately preceding 1871, 59 and 54 per cent., or more than half, of the total small-pox mortality was borne by children under five years old," whilst "now, only 28 per cent., little more than a quarter of the total small-pox mortality, falls upon such children," a clear indication of the greater success with which the law of compulsory vaccination is now carried out.

**ANIMAL VACCINATION—CALF LYMPH.**—A common objection against "arm to arm" vaccination is based on the fact that the lymph is passed through the human system, and may become the means of transmitting enthetic disease. This danger, however, though by no means to be disregarded, is so very slight as to be in practice almost inappreciable. Nevertheless, and it being desirable to remove every impediment to the full acceptance of vaccination, it is satisfactory to know that the Local Government Board have made arrangements for affording to parents the option of having their children vaccinated with calf-lymph at the public vaccination stations. The Government, moreover, supplies medical practitioners with "stock" lymph from the calf to enable them to start a series of vaccinations, leaving them to keep up their supplies afterwards—if they can. The use of calf lymph is common on the Continent, and the system of animal vaccination has been carried to great perfection at Brussels under the direction of M. Warlomont, who forwards regular supplies of lymph to this country, tubes and charged ivory points being procurable at a moderate price. Stations, moreover, public and private, have been established at which persons can be vaccinated direct from the calf.

## **SANITARY.**

**COMMITTEE FOR CARRYING OUT THE NUISANCES REMOVAL ACTS.**—With the view of accelerating proceedings in cases of nuisance, your Vestry decided in February, to appoint the Works, Sanitary, and General Purposes Committee, to be a Committee to receive notices, take proceedings, and in all respects, execute the

Nuisances Removal Act, for England, 1855, and all Amending Acts. The Committee meets for the purposes of the Acts once a week, and notices are issued upon the immediate authority of the Committee, which simply reports its proceedings to your Vestry. Summonses continue to be heard by the Justices sitting in Petty Sessions at the Vestry Hall. It were to be desired that the Justices would place sanitary cases at the top, instead of, as heretofore, at the bottom of their agenda, so that the several Inspectors might be set free at a reasonable hour to go about their ordinary work. The business of the Inspectors rarely occupies any considerable length of time in Court, but on many occasions the entire staff has been detained till 1 or 2 p.m., waiting for their cases to be called. The Justices doubtless would pay due regard to any application on the subject by your Vestry. They would also, I believe, consent, if requested, to hold a mid-monthly meeting for hearing sanitary cases. The duties of the Magistrates in this department of judicial work have increased considerably, owing to the Chelsea Vestry and the Fulham District Board of Works having to some extent followed the example of your Vestry in bringing their cases before the Court. The Magistrates in the Tower Hamlets Division, influenced by the practice of the Justices in the Kensington division, have arranged to hold a fortnightly meeting for the purpose of dealing with Bethnal Green sanitary cases. Application was made to me by the magistrate to whose initiative this action is due, to know how the system worked in Kensington, and it afforded me much satisfaction to be able to speak favourably of the results. It would be well, in the interest of public health, if the Justices in every Division would take the same interest in this description of work.

**THE LOCAL GOVERNMENT BOARD AND SANITARY AUTHORITIES.—**

With the view of informing sanitary authorities on the extent and limitations of their powers, the Local Government Board, issued in December, 1883, a circular letter dealing with "Dwellings of the Labouring Classes in the Metropolis," and accompanied by

- (a) Digest of provisions as to Removal of Nuisances (Metropolis).

- (b) Digest of the Artizans and Labourers' Dwellings Acts, (Mr. Torrens's Acts).
- (c) Digest of the Artizans and Labourers' Dwellings Improvement Acts, (Sir R. Cross's Acts).
- (d) Digest of Labouring Classes' Lodging Houses Acts, (Lord Shaftesbury's Act).

The Board at the same time issued circular letters with regard to the Regulation of Houses let in lodgings, and to the Regulation of Bakehouses under the Factory and Workshop Acts. These subjects are, or will be, referred to in other sections of this report.

THE WORK OF THE SANITARY INSPECTORS.—Tables VI. and VIIA. (Appendix) contain a summary of the work of the Sanitary Inspectors during the year ended March 25th, 1885. Eighty-nine summonses were taken out for offences, under the Nuisances Removal Acts, against 104, 78 and 98 in the three preceding years. Orders were made by the Magistrates in nearly every instance for giving effect to the Notices previously served on the defendant persons, upon whom, as the law at present stands, no penalty can be inflicted, however serious or long continued the nuisance. Under the provisions of Section 96 of the Public Health Act, 1875, which does not apply to the Metropolis, the Justices have power by their Order to inflict a penalty not exceeding five pounds, on the person to whom the Order is made, together with all costs. The same power should be conferred on Courts of Summary Jurisdiction in London. At present the Justices can punish for contempt of Court only, by a penalty of ten shillings per diem, during continuance of disobedience to the Order of the Court. In five cases penalties were inflicted, ranging from ten shillings to seven pounds. If the Justices had power to inflict penalties for offences under the Nuisances Removal Acts, disregard of the Local Authority's notices, which implies continuance of nuisance, with consequent injury to health, to say nothing of the trouble and loss of time imposed upon officers, would be infrequent, always supposing the power were exercised. That the cases are proper to be brought before the Justices is obvious, from the fact that

dismissal of a summons is a very rare occurrence. Orders were made last year for the execution of works, as follows :—

To provide a supply of water to houses	...	23
To „ „ „ to water closets	...	26
To „ „ „ to public - house urinals	... ..	2
To repair and cleanse defective fittings to [ditto		14
To cleanse, repair, and whitewash walls of rooms		32
To provide new or repair existing dust bin	...	11.
To repair roofs, &c., of houses	... ..	5
To repair or provide cover to cistern	... ..	8
To trap drains, gulleys, or sinks	... ..	15
To disconnect waste pipes of cisterns, sinks, &c., from drains	... ..	12
To repair, cleanse, or unstop defective or choked drains	... ..	6
To repair defective soil pipes	... ..	4
To repair defective rain pipes	... ..	5
To remove offensive accumulations	... ..	3
To repair defective paving and drainage of stables		2
To ventilate a school and re-construct the latrines on improved site	... ..	1
To abate overcrowding	... ..	2

On several occasions proceedings were taken against one person to secure the removal of animals so kept as to be a nuisance or injurious to health, the animals being cats and dogs of all ages and both sexes, and a prohibitory order was granted to prevent recurrence of the nuisance; the defendant appealed to Quarter Sessions, but the conviction was affirmed.

Proceedings were taken against an owner to compel him to reconstruct the drain of a house full of poor people, the drain having been opened up for examination and found to be very defective. Your Vestry's notice was disregarded. The owner was summoned, and the Justices made an Order for the work to be carried out in conformity with the terms of the notice. The

owner appealed against the Order, and before the appeal could be heard he sold the house, and then claimed that by the terms of the sale-contract he was exempt from the obligation to reconstruct the drain, which had been left open for many weeks. We insisted that it was his duty to do the work, and just before Quarter Sessions he arranged with the purchaser of the house; the work was done, the notice of appeal was withdrawn, and no punishment could be dealt out to the person who had thus trifled, for a period of nearly three months, with your Vestry as Sanitary Authority, and had gravely endangered the health of the inmates of the house. I felt strongly that proceedings should have been taken to recover the penalties accruing for disobedience of the Magistrate's Order (at the rate of ten shillings per diem), from the date of the service of the Order to the day when—the work having been executed—the notice of appeal was withdrawn. The proceedings were, of course, taken under the Nuisances Removal Act. Had the machinery of the Metropolis Management Act been put in operation, the work might have been executed by your Vestry at an earlier date, at the cost of the person on whom the notice was served, and by whose default the delay arose. But it is not the practice to proceed under this Act on account of the supposed difficulty of recovering the cost of works executed by the Sanitary Authority. The Act, however, gives the Sanitary Authority a choice of procedure, and instead of doing the work the Authority may sue the defaulter for a penalty not exceeding five pounds. But the Justices have absolute discretion as to enforcing the penalty, and, as a matter of fact, they are usually disposed to take a lenient view of the laches of owners, so that, placed on the horns of a dilemma, the Sanitary Authority may well feel a difficulty in deciding on the best course to adopt. Sanitary Law, although good enough in theory, is undoubtedly very defective in practical application.

**WATER SUPPLY: THE CUTTING-OFF POWERS OF THE COMPANIES.**—In dealing with the question of water supply in my Annual Report for 1882 (pp. 117–126), I recited the powers of the Companies, referring especially to the power to cut off water for nonpayment of water rents, and I urged that the Companies

should be left to their remedy for the recovery of debts like other traders. No doubt, as I then said, it seems, at first sight, not unreasonable to allow a Company to discontinue the supply when a customer fails to pay. But water is a prime necessary of life, and the absence of it in an inhabited house constitutes a serious nuisance; the Companies, moreover, enjoy a valuable monopoly, so that, economical laws notwithstanding, the Legislature would be justified in dealing with this matter in an exceptional way.

Public attention was directed to this subject by the act of the Grand Junction Water Works Company in cutting off the supply from the whole of Hayden's Mews, Portobello Road, Notting Hill, in December last, under circumstances fully set out by me in a Special Report (No. 13, 1884, December 17th, p. 79). The Mews is private property. It contains 20 separate premises, belonging, with one exception, to one person. The stables were let to an omnibus proprietor, the rooms to a number of separate tenants. At the time when the water was cut off for nonpayment of the water rent, 15 sets of rooms were occupied, the number of inhabitants being 81. The tenants of the rooms were under agreement to pay a weekly rent, which, as far as they were concerned, covered the cost of the water supply. The occupier of the stables, which are supplied with water from a cistern or cisterns in the upper part of the premises common to the rooms and to the stables, had agreed to pay the water rent, but failed to do so, alleging that it was not fair that he should pay for the water consumed by other people. He complained also of the excessive increase in the amount of the water rent, an increase resulting incidentally from the Company's defeat in the well-known Dobbs case. But as he was in arrear at another stable yard, and at his private house also, and as his affairs went into liquidation not long after the water had been cut off, it is at least probable that pecuniary difficulties were at the bottom of his neglect, and that his failure to appeal against the Company's charges arose from his inability to meet any portion of them.

The Company had an indubitable right to cut off the water under the provisions of the Waterworks Clauses Act, 1847, one

section of which requires the Company's water rentals not merely to be paid when demanded, but to be paid in advance. Without notice to your Vestry, as responsible for the sanitary condition of the Mews, or to the people inhabiting the Mews, the water was cut off, on December 15th, by severing the service pipe of each separate building. The fact came to my knowledge on the 16th, and I at once wrote to the Secretary to the Company to enquire whether he was aware of what had been done? On the 17th I reported on the subject to your Vestry, and my report found its way into the daily papers on the following day, with the result that the Company immediately put up a stand-pipe in the Mews, from which, for a limited time each day, the people were enabled to draw a supply for domestic purposes in whatever pots, pans, or other vessels they possessed; but the drains and water closets, naturally, did not get regular flushing, so essential for keeping them clean and to prevent obstruction.

Your Vestry on the same day (December 17), authorised the issue of notices requiring the water to be re-laid on. The notices not having been obeyed, summonses were applied for, and in due course Orders for laying on the water were made by the Justices. As usual, therefore, the powers of the sanitary law were invoked for the Company's benefit, *i.e.*, to secure the payment of their water rentals. But all the parties were in difficulties at the time, and the Justice's Orders, equally with your Vestry's notices, were disregarded. The case came before the Justices more than once and ultimately, possession of the stables having been given up by the tenant, and the Company having consented to rank on his estate as an ordinary creditor, the water was laid on, just nine weeks after the supply had been cut off.

An observation with reference to the inconsistencies of water legislation is suggested by the fact that Hayden's Mews is on the "constant service." Had the water been cut off because the "fittings," or water supply apparatus, were not of the "prescribed" character, (and they were not), your Vestry as "Nuisance Authority" would have been entitled to receive notice from the



Company. But as the water was cut off on account of non-payment of the Company's water rentals, the Company was under no obligation to give such notice. The absence of the prescribed fittings, which entitles the company to cut off the water, constitutes a statutory nuisance within Section 11 and Sections 12 and 19 (inclusive) of the Nuisances Removal Act for England 1855, and is "presumed to be such as to render the premises unfit for human habitation," even although the premises may be supplied with water. But should the premises have been deprived of water by the act of the Company, as in the present instance, for non-payment of the rate, the law has nothing to say to the matter. The Nuisance Authority may be, and often is, left in ignorance of the fact for weeks together, and when ultimately proceedings have been taken for the restoration of supply, supposing the Vestry's notice be disregarded, it is within the discretion of the Justices to make such Order as they think fit, and to decide, should their Order be disregarded, whether or no the house is "unfit for human habitation."

Looking at the water companies' powers from a sanitary point of view it seems to me reasonable—while the law is in its present unsatisfactory state—that a company should demand payment of its water rental in advance in the case of a bad tenant, and take proceedings to enforce payment prior to the expiration of the period covered by the demand note, and thus obviate the necessity for cutting off the water. I see no reason, moreover, why the companies should not be endowed with the same facilities for recovering their water rentals as a "nuisance authority" for the recovery of its rates, and these are simplicity itself. Water Companies, however, are naturally enough unwilling to be at the trouble of taking legal proceedings, although the costs would fall on the defaulting tenant.

The Hayden's Mews case gave rise to a correspondence between your Vestry and the Secretary to the Company, and between myself and that gentleman, which will be found in my special report above referred to. In the course of it the Secretary having suggested that the Medical Officer of Health should act in "harmony"

with the Company, I ventured to point out that defect in respect of "conjoint action and mutual help," which the Secretary professed to desire, rested with the Company rather than with me, for, as I stated, water is frequently cut off for nonpayment and no notice is given to me; but *when* I find out that water has been cut off I cause a notice to be served upon the owner of the house, and so get the water laid on again as quickly as possible, much to the Company's advantage.

My views, moreover, on the subject of cutting-off for non-payment, were not formulated for the occasion, but are of long standing. In 1882, to go no further back, I drew up the following propositions, which were unanimously adopted by your Vestry, and may be cited as a general statement of my opinions on the subject of water supply.

- (a) That the Water Companies should be requested, if they are not by law required, to give the Vestry notice in every case when they have cut off the supply of water from inhabited premises, from whatever cause.
- (b) That as the existence of waste-pipes connecting water cisterns with drains constitutes a dangerous nuisance which ought to be universally abated, application should be made to the Local Government Board under section 19 of the Water Act, 1871, with a view to an alteration of the 14th regulation, so as to compel a Water Company to take measures for abolishing waste-pipes connected with drains, and to give the Sanitary Authority equal power with the Company to abolish waste-pipes, and to enforce the regulations having a sanitary bearing, *e.g.*, Nos. 9, 11, 13, 14, 16, 17, 20, 21, 22, 24, 25, 31, and 32.
- (c) That if the existing law does not empower the Board to direct such alteration of the regulations, the Board should be requested to promote further legislation so as to confer such power and to compel the Companies to carry out the regulations generally.
- (d) That the Sections of the Acts conferring on the Water Companies the power of cutting off the water from premises should be repealed, such other powers to enable the Companies to recover rates or make good fittings, &c., being substituted, as to the wisdom of Parliament shall be deemed equitable and sufficient.

At the Meeting of your Vestry, held January 14th, 1885, it was unanimously resolved:—

"That a copy of the Report of the Medical Officer of Health, and a copy of the entire correspondence with the Grand Junction Waterworks Company,

be sent to the Home Secretary, the Local Government Board, the Metropolitan Board of Works, to each member of the Royal Commission on Housing of the Working Classes, to all the Vestries and District Boards of the Metropolis, and to the Grand Junction Waterworks Company.

The Commissioners in their report recommend that the Companies be deprived of the summary power to cut off the water supply.

It only remains to be added that a Bill was introduced in the House of Lords by the Earl of Camperdown in the current Session, for "Regulating the Powers of those Water Companies which incorporate in their Special Acts the Waterworks Clauses Act, 1847." His Lordship proposed, among other things, that the Companies should be deprived of the power of cutting off the supply of water as a punishment for the non-payment of the rates, except in cases where an order is obtained on a summons, setting forth the reason for the power being put in force, and the date at which the water may be cut off.

The Bill found considerable favour with the public and sanitary authorities generally, many of which, your Vestry included, petitioned the House in its favour. It was supported by the late Lord Chancellor (Lord Selborne), and by the present Prime Minister (Lord Salisbury), among others, and was referred, by consent of Lord Camperdown, to a small Select Committee, upon the understanding that no counsel should be heard. The Bill emerged from the Committee Room, and passed the Lords, in a form that has failed to satisfy public opinion, so that petitions have been presented to the House of Commons, praying, in effect, that the Bill may be restored to its original condition. It is highly probable, however, that, in the present state of the business of the House, resulting from the change of Government, the Bill will fall through.

### **OFFENSIVE BUSINESSES.**

**NUISANCE FROM BRICK BURNING.**—During the summer of 1884, as in many previous years, complaints were made by persons residing in different parts of the parish, of offensive smells,

especially in the early morning hours, the smells being almost invariably alleged to be due to escape of sewer gas. But the smells, sometimes described as sulphurous and suffocating, were caused in my opinion by the burning of bricks in localities, for the most part, beyond the limits of the parish. One gentleman who had formed the same opinion as to the origin of the smells, was very emphatic in asserting his "claims as a ratepayer" upon your Vestry to "take up the case, and combining with other Vestries, nearer the brickfield, compel a speedy abatement of a hardly endurable nuisance," believing as he did that "it can hardly be that there is no power to put an end to it, or that a nuisance like this cannot be prevented." The reality of the nuisance is beyond question, and it is satisfactory to add that it has recently been proved that the law is strong enough to put a stop to it.

The parishioners of Hampstead have suffered for some years from this form of nuisance, and the Vestry were moved in the summer of 1884 to take action against a firm of brickmakers whose premises adjoin the Fleet Road in that parish. The Vestry in the first instance proceeded by injunction, in the Chancery Division, to restrain the parties from carrying on their business so as create a nuisance; the plea being that the defendants, by creating noxious and putrid emanations on their brickfields, caused great discomfort to the neighbourhood, and that the fields, in fact, were a nuisance. The fiat of the Attorney General was obtained to restrain the defendants. Affidavits were filed on both sides, and the Vestry's officials were cross-examined in chambers on their affidavits. The case came on for hearing at the end of the legal term, when there was great pressure on the Court, and Vice-Chancellor Bacon dismissed the application for an injunction, by referring the case to the Vacation Judge, on the ground that the business had been going on for four years. As many of the witnesses were leaving town for the holidays, the action fell through. The case was subsequently put down for trial at common law. The nuisance, it may be mentioned, does not arise from burning clay *per se*, but is due to the combustion of refuse matter obtained from dustbins, and used in the manufacture of the bricks and as fuel for the baking of

the bricks. The "dust" is sifted to remove matter of an organic nature, animal and vegetable, but no amount of sifting will prevent putrid emanations when the refuse is burnt. In the Hampstead case the Vestry officials compelled the removal of all "soft core" from the fields, and it was admitted that the defendants conducted their business with due care, sifting the refuse repeatedly, &c. Still the nuisance continued. Dustbin refuse, it may be mentioned, is left a year to "mellow," exposed to wind and rain, and the ashes become saturated with organic matter. The clay of which the brick is moulded is usually incorporated with dustbin ashes. The bricks are burned in "clamps" or layers of green bricks separated by layers of "breeze," *i.e.*, cinder siftings from dust heaps. "Kilns" for burning bricks have to be constructed and coal dust is used in them, so that the difference in cost of production is considerable. At the rear of the Fleet brickfields at Hampstead, there are others in which bricks are burnt in kilns, and from these it is stated that there arise no putrid fumes, but plenty of smoke. The Hampstead defendants contended that they must use the sort of material they did use to produce the common stock brick.

Prior to the hearing of the cause (*Attorney General v. Ellt*) another action (*Dunston v. Neal and Seely v. Neal*) had been tried. The brick burning in this case was carried on at Streatham, in what might be called the open country, and the plaintiffs were a farmer and a private gentleman respectively. This cause was tried before Mr. Justice Cave; the Hampstead case before Mr. Justice Wills. In both cases the plaintiffs succeeded in proving nuisance, and the Judges severally granted injunctions restraining the defendants from carrying on their businesses so as to create a nuisance.

In the Streatham case both of the plaintiffs complained that the noxious smells arising from the brickfield seriously interfered with them in the enjoyment of their premises—so much so that in certain states of the wind, (although they lived about 400 and 800 yards, respectively, from the source of the nuisance), they were unable to open their windows. The cause of nuisance, as proved, arose from the use of dustbin refuse in the

manufacture and in the burning of bricks, the effect being to produce noxious fumes, which give rise to nausea, loss of appetite, headache, and *malaise*. Some witnesses said they had traced the smell at the distance of a mile. The quantity of bricks made averaged 2,000,000 yearly, and the materials used were 500 yards of dustbin refuse, 500 yards of road scrapings, and 5,000 yards of clay. Mr. Justice Cave, in delivering judgment in favour of the plaintiffs, said the plaintiffs had to make out that there was a nuisance which substantially affected themselves in health, or in the comfort and enjoyment of their premises. The evidence satisfied him that so far as the brick burning went there was no nuisance to health in the sense of causing disease or illness. There remained the question whether there was a nuisance which affected the plaintiffs in the comfort and enjoyment of their premises, but he should first enquire whether there was a nuisance which affected anybody. Reviewing the general evidence which had been given on this subject, his Lordship said that, in face of the medical evidence which had been given for the plaintiffs, he could not believe that the use of refuse of an organic nature (animal and vegetable), in brick-making, did not create a nuisance in the neighbourhood. On the whole the evidence for the plaintiffs very much preponderated, and his Lordship was clearly of opinion that there was a nuisance at the brickfield. Did this nuisance affect Mr. Dunston and Mr. Seely? After reviewing the evidence as to the distance to which the smell travelled, and as to what had been perceived at Mr. Seely's house, his Lordship said he was satisfied that there was a nuisance which could be perceived at the plaintiffs' premises, and to such an extent as to render the occupation of their houses uncomfortable and unenjoyable. His Lordship therefore directed judgment for the plaintiffs, with an injunction to restrain the burning of bricks in such a way as to interfere with the comfort of the plaintiffs.

In the Hampstead action, after a few professional and other witnesses had given their evidence, Mr. Justice Wills, at the request of the defendants, consented to view the brickfield, which lies in a hollow near the Hampstead Heath Railway Station, and adjoins the grounds of the North-Western (Asylum Board's)

Hospital. Upon coming into court his Lordship said he found a nuisance to exist, and, with the consent of the defendants, he stopped the case, delivering judgment in favour of the plaintiff, with costs.

I have referred to the above interesting and important actions in view of the certainty of complaints coming, in the ensuing summer and autumn, from inhabitants of this parish, arising from the noxious fumes produced by the burning of bricks in the Potteries, and in adjoining parishes, and to point out that the nuisance can be restrained by the action of the Court, upon the application of private individuals, or upon the application of a public body, like your Vestry, and whether the nuisance is caused by brick-burning, originating within or beyond the boundaries of the parish.

As it appears that nuisance may be prevented by the adoption of a particular method of burning bricks, in kilns, the subject would seem to be a proper one to be dealt with by legislation. The business of a brick-maker is an "offensive business," although it cannot be brought within the provisions of the Slaughter Houses (Metropolis) Act, 1874—and legislation may be necessary in order to bring it under regulation and control. The proper authority for promoting such legislation would be the Metropolitan Board of Works, and I have reason for believing that the Board would be willing to take up the matter were it encouraged to do so by the several Vestries and District Boards of Works. Their views probably will soon be known, the Society of Medical Officers of Health having recently drawn the attention of the Board to the subject in a communication to the effect (1) that there are sufficient reasons for regulating this trade by bye-laws as other offensive trades have been, with such manifest advantage to the public, and (2) that owing to the considerable distance which these effluvia travel, and to the fact that many of the brickfields contributing to the nuisance are outside the Metropolitan area, legislation should be general, and apply to areas within a specified distance of centres of population.

**MARINE STORES.**—Every year, during the hot weather, complaints, more or less numerous, are received in regard to the stench arising from the collection and storage of fat and other animal matters in a putrid condition on the premises of marine store dealers.

The attention of your Vestry having been drawn to the difficulty of *preventing* the recurrence of nuisances from this cause under the Nuisances Removals Acts, it was resolved, in 1883, "that the attention of the Metropolitan Board of Works be directed to the serious character of the nuisance caused by the collection of putrid animal matters at marine stores, and that they be requested to consider as to the desirability of the business of a 'marine store dealer,' being declared an 'offensive business' under the provisions of the Slaughter Houses (Metropolis) Act, 1874, Section 3." It was felt that public advantage would result from the action recommended to be taken, for were the business scheduled under the Act, we should be able to secure a proper construction of the premises where it is carried on, proper impermeable receptacles for the collection, storage, and removal of the fat, &c., and frequent, if not daily, removal of offensive matters from the premises. Incidentally, moreover, the nuisance would be diminished, for if the business were subjected to needful supervision, the proprietors would impress on vendors, domestic servants for the most part, the necessity of submitting their "perquisites" for sale in a more wholesome condition.

The Board, however, did not adopt the views submitted by your Vestry, for in their reply they stated that "the businesses to which the Act of 1874 refers, are businesses which include processes of manufacture of a more or less offensive character, and that it does not appear to the Board that the mere collection of a mass of refuse matter into one place is a 'business' within the meaning of the 3rd Section of the Act." But among "offensive" businesses already scheduled are those of "bone boiler," "tallow melter," and "fat extractor," the staple articles of which are obtained largely from "rag and bone shops." The "processes of manufacture," moreover, in melting tallow, and in boiling bones or



hog wash, to extract fat, are not very obvious; and, it must be added, the bye-laws for the regulation of these "businesses" do not permit collections of bones, fat, &c., to remain exposed on the premises to pollute the air. Why then, should such matters be allowed to remain exposed, and polluting the air, in the neighbourhood of the stores where they are originally collected, and which are so much more numerous than the "manufactories?" The Board was of opinion that a nuisance such as that brought under their notice "should be dealt with under the Nuisances Removal Act," which, they say, was "intended to apply to such cases." Doubtless it was intended to apply to such cases, but it was also intended to apply to the cases of the "offensive businesses" now regulated under the Slaughter Houses Act, in respect of which the Board is the "Local Authority." In practice, however, it was found impossible to deal effectually with nuisances arising in the conduct of those businesses under the general Act, and so a special Act was passed. The Board evidently do not realise the difficulty of dealing with recurring trade nuisances under the Nuisances Removal Act; but experience has taught them how easy it is to prevent nuisance when the "offensive businesses" are conducted subject to bye-laws with appropriate penalties for offences. In properly constructed premises, in chambers without openings, to the external atmosphere, and in covered impermeable receptacles, bones, fat, &c., can be stored without nuisance, and it is to be regretted that the Board did not see their way to secure these requisites by declaring a marine store business to be an "offensive business" within the meaning of the Act. The Board employ but few Inspectors of offensive businesses, and they might well have supposed that a large staff would be required for the regular inspection of marine stores. But the difficulty could be got over, once bye-laws were framed, by making use of the services of the sanitary inspectors in the several sanitary districts.

One point has been made clear since the correspondence between the Board and your Vestry took place, viz., that the business of a bone and rag merchant is *ejusdem generis* with the businesses named in the Slaughter Houses Act, and those

scheduled by the Board since the passing of that Act. That point was settled in the case, *Passey (Appellant) v. Oxford Local Board (Respondents)*, in which Lord Chief Justice Cockburn and Mr. Justice Lopes decided that the business of "bone and rag merchant" is an "offensive trade," of the same nature with those specified in Section 112 of the Public Health Act, 1875, which is based upon, and substantially corresponds with, the 3rd Section of the Slaughter Houses (Metropolis) Act, 1874.

The only businesses having the statutory description of "offensive," other than that of a slaughterer of cattle, carried on in this parish, are those of Tallow Melter and Fat Extractor.

**TALLOW MELTING.**—Tucker's Factory, in the High Street, is the only one in Kensington, and it must be confessed that the efforts of the proprietor to prevent effluvium nuisance have not been altogether successful, as complaints were made from time to time last year by inhabitants in the vicinity. The complaints were referred to the Metropolitan Board, the local authority in regard to offensive businesses. The Board, in its Annual Report, states that "the improvement in the manner of conducting the businesses" (of soap boilers and tallow melters) "has been continued during the past year, and it has not been necessary to take proceedings for the enforcement of the bye-laws in any case," a statement which I suspect would be traversed by many persons residing in Kensington Square.

**FAT EXTRACTING.**—Two businesses are carried on in Tobin Street, Notting Dale. They give rise, more or less, to effluvium nuisance, notwithstanding improved arrangements and care on the part of the proprietors. But the people living thereabouts are not of a particularly squeamish character, and they rarely complain. The Metropolitan Board, referring to this trade and that of a fat melter, reports that "these businesses have been generally well conducted during the year."

#### PRIVATE MEWS.

A question having arisen last year as to your Vestry's powers in regard to the surface of so-called private mews,

I was requested by the Works, Sanitary, and General Purposes Committee to state the facts regarding certain of these mews, for the information of the Law and Parliamentary Committee, to which the question had been referred :—Whether your Vestry have power to pave and drain, or to compel the owners to pave and drain, the surface of mews, regard being had to the provisions of 18 and 19 Vic., c. 120, ss. 98 to 100 and 105—6 ; and of 25 and 26 Vic., c. 102, ss. 80 and 81 ? The mews specially referred to were those named “ Hayden’s,” “ Golden,” and “ Colville.” Two of them are thoroughfares in the ordinary sense of the word, but the first-named is a *cul de sac*. All of them have been “ laid out ” since the passing of the Metropolis Management Act, 1855, application for permission having been made to, and granted by, the Metropolitan Board of Works. The mews may therefore be regarded as “ new streets,” but they have not been formally “ dedicated ” to public use by being taken over by your Vestry. The several mews are lighted and they are regularly inspected, but your Vestry do not cleanse the surface nor exercise any control over them, excepting under the Nuisances Removal Acts, when occasion arises for the interference of the Sanitary Inspector. The mews are practically cab yards, and in regard to one of them (Hayden’s) the public have been “ barred-out ” occasionally. In regard to Golden Mews, “ barring out ” is forbidden by the covenants of the lease. Cabs and other vehicles, moreover, are constantly allowed to stand in the mews. The rooms over the several stables are let to numerous private persons unconnected with the businesses carried on in the Mews. The Committee reported that in their opinion your Vestry have power to well and sufficiently pave the mews, and to recover the cost of providing and laying such pavement from the owners of premises abutting on such mews. Steps, therefore, are in course of being taken, by the service of notices, requiring the surface of the several mews to be properly made up and paved in the usual manner.

## THE LICENSED SLAUGHTER-HOUSES.

The licensed slaughter-houses, which in 1874 were 54 in number, are now only 24, viz., 15 in North Kensington, *i.e.*, the district north of Uxbridge Road, and 9 in South Kensington, *i.e.*, in the remainder of the parish south of Uxbridge Road. The names of the licensees, and the localities of the licensed premises, are set out in Table XI. (Appendix). The several premises were inspected, in July, by the Works, Sanitary, and General Purposes Committee, who found them to be "in a satisfactory condition." The Committee reported that "comparatively little slaughtering appears to be now carried on in the parish, and on some of the premises none at all." Wherever animals were found in the lairs, it was observed with satisfaction that, in accordance with a frequently repeated recommendation of the Committee, a supply of water had been provided. Altogether, the state of matters in regard to the slaughter-houses has undergone a great improvement since the passing of the Act in 1874. I am of opinion, nevertheless, that private slaughter-houses should give place to public abattoirs, and that the dead meat trade should be encouraged to the utmost. It would be well, moreover, looking at the matter from the public health point of view, to increase facilities for bringing the consumer into direct relations with the purveyor of meat—mutton especially—imported from our colonies. This meat, usually excellent in quality and condition, is often sold at an unfairly high price as English meat, to the best of which, so far as my experience goes, it is in no way inferior.

The business of a slaughterer of cattle has not been established anew in Kensington since the passing of the Act.

The number of private slaughter-houses in the Metropolis, which in 1874 was 1,429, had fallen, in October, 1884, to 792, and this without any evidence to show that inconvenience had arisen to the public, or that the supply of sound meat had been in any way curtailed.

## THE LICENSED COWSHEDS.

The licensed cowsheds are 16 in number, viz., 10 in North Kensington, and 6 in South Kensington. The names of the licensees, and the localities of the licensed premises, are set out in Table XII. (Appendix). The several premises were inspected, in July, by the Works, Sanitary, and General Purposes Committee, and were "found in a satisfactory condition." The sheds are licensed for the keeping of 196 cows, but contained 139 only, at the time of inspection.

## DAIRIES, COWSHEDS, AND MILKSHOPS ORDER OF 1879.

SANITARY SUPERVISION OF DAIRIES, COWSHEDS, &c.—The Metropolitan Board of Works is the "Local Authority" under this Order, framed by the Privy Council, in the exercise of the powers given to it by the 34th section of the Contagious Diseases (Animals) Act, 1878, which provides for the registration of persons carrying on the trades of cow-keeper and purveyor of milk, for regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cowsheds; for securing the cleanliness of milk stores, milkshops, and milk vessels, and for protecting milk against infection and contamination. The Order also empowers the Local Authority to make regulations for the cleansing of the premises. We learn from the Board's Annual Report that since the Order came into operation, upwards of 18,000 registrations or transfers of registration have been effected, and that during 1884 there were in the Metropolis 850 cowkeepers, keeping upwards of 10,000 cows. In the larger dairies and milk stores, it is stated, much improvement has taken place, and they are generally in a satisfactory condition; while in the small shops where milk is sold, there has been considerable improvement in point of cleanliness, and in the separation, from the place of storage, of substances likely to contaminate the milk. The terminal and local railway stations in the Metropolis, at which country milk is delivered,

were inspected, and measures taken with the view of securing satisfactory arrangements.\*

### PUBLIC HEALTH (DAIRIES, &c.) BILL, 1883.

In a previous Annual Report I referred to the "Public Health (Dairies, &c.) Bill," introduced by the Government, with the object of placing the supervision of dairies, cowsheds, &c., under the Sanitary Authorities, it having been found, by experience, that in many parts of the country the "Dairies, &c., Order, 1879," was practically a dead letter, owing to the failure by "Local Authorities" (mostly county Magistrates) to appoint proper officers to inspect dairies and cowsheds, and generally to carry out the provisions of the Order.† The object of the Bill was (among other things) to transfer to the Local Government Board, the powers of the Privy Council, with regard to cowsheds, dairies, and milk shops, including the power of making "Orders." Had it passed, the Metropolitan Board of Works would have continued to be the "Local Authority" for the Metropolis, outside the city; an objectionable arrangement, seeing that the Board have no Medical Officer and no proper sanitary staff. Under the auspices of your Vestry, a strong opposition to this part of the Bill was raised, it having been urged that, while it was desirable to give the Board power to frame bye-laws for the regulation of dairies and cowsheds, so as to secure uniformity, the duty of carrying out the bye-laws and generally of supervising dairies, cowsheds, &c., should be entrusted to the Sanitary Authorities, viz., the Vestries and the District Boards, these bodies, without exception, having Medical Officers and Inspectors well accustomed to the work. The views of your Vestry were in

---

\* A new "Dairies, etc., Order" came into operation June 30th, 1885, superseding the Order of 1879.

† The "Local Authorities" for Middlesex, and part of the County of Surrey, are deserving of honourable mention for having appointed special officers to carry out the provisions of the Order.

accordance with those of the Society of Medical Officers of Health, who, at a former time, had passed a resolution to the effect—

“That it is desirable, having regard to the more effectual prevention of the spread of zymotic disease by the agency of milk, that the special sanitary supervision and inspection of cowsheds, dairies, and milk shops, should be entrusted to the Local (*i.e.*, Sanitary) Authorities, the Medical Officers of Health, and the Sanitary Inspectors of the respective districts.”

Communications were addressed to the Lord President of the Council, to the President of the Local Government Board, and to the Vestries and the District Boards, with the object of preventing the perpetuation of the error involved in placing the supervision of cowsheds and dairies under the Metropolitan Board. Whether they would have been attended by the desired success it boots not now to enquire, for, owing to pressure of business, the Bill was dropped, and it has not been re-introduced, although the necessity for legislation, upon the lines of the Bill, has been fully admitted by the Vice President of the Council, and by the Local Government Board.

### BAKEHOUSES.

In some of my previous annual reports I had occasion to deprecate the transfer of the duty of supervising bakehouses from the Sanitary Authority to the Factory Inspector, under the provisions of “The Factory and Workshop Act, 1878,” by which “The Bakehouses Regulation Act, 1863” was repealed. The result of the transfer was to put an end to the systematic inspection of bakehouses in the metropolis as a whole, for the Factory Inspectors were too few in number to take up the duty, which the Sanitary Authorities, as a rule, ceased to perform, the result being that many of the bakehouses fell into a deplorable state of neglect, as testified by the reports of the Factory Inspectors themselves. Happily, the representations addressed to the Government by the Society of Medical Officers of Health and others, to which I referred in my report for 1882, supported, as they were, by the admissions and the recommendations of the Chief Factory Inspector

himself, sufficed to convince the Government that an error had been committed in depriving the "Nuisance Authority" of the power to exercise sanitary supervision over the bakehouses; and so it came to pass that in the last days of the Session of 1883, and by the enactment of the "Factory and Workshop Amendment Act," the legislation of 1878 was modified, the Vestries and District Boards being restored to their former position, and they are now the "Local Authority," so far as relates to cleanliness, ventilation, overcrowding, and other sanitary conditions of bakehouses, with power to enforce Sections 3, 33, 34 and 35 of the "Factory and Workshop Act, 1878." The recommendations of your Vestry went considerably beyond the point reached by the new Act and were in substantial agreement with the views set out in my annual report for 1881, in which I said—

"What really is required is a proper 'Bakehouse Regulation Act,' providing for the licensing of bakehouses, and conferring on Sanitary Authorities the power, which they should be obliged to exercise, of regulating the trade by bye-laws, uniform for the Metropolis, dealing with—

- (1) The position and construction, including lighting and ventilation of bakehouses.
- (2) The periodical cleansing of bakehouses; and
- (3) The materials and utensils employed in the manufacture of bread."

As to the desirability of a measure embodying the above views, there is now a general consensus of agreement, but it was felt to be useless to press for any alteration in the Bill of 1883, for the simple reason that owing to the lateness of the period at which the Bill was introduced, it could not be passed into law, excepting in its original form. I took the opportunity, nevertheless, of drawing the attention of the Local Government Board to the imperfections of the Bill, and it is to be hoped that at a convenient season a more complete and satisfactory measure may be introduced. The operative bakers are in complete accord with us as to the necessity for thorough supervision of bakehouses by the Sanitary Authority. In this parish your Vestry's control over the bakehouses was never wholly lost, as, on the repeal of the Act of 1863, the sanitary inspectors had, in accordance with my instructions, regularly



inspected them during the interregnum (1879-88) as before. Although, therefore, there is still much to desire in regard to the position and the arrangements, generally, of the premises—few of them having been built for use as bakehouses—sanitary conditions have on the whole been fairly maintained, and under the powers now possessed by your Vestry, I hope that, in course of time, considerable improvements may be effected.

The subject of bakehouse regulation had more than once been considered by the Society of Medical Officers of Health, and upon the passing of the new Act the Society prepared “ Suggestions for Regulations with respect to Bakehouses,” for the guidance of local authorities. There is no express authority for making regulations, but it was felt that much good would result should local authorities see fit to adopt regulations, framed in accordance with the provisions of the Acts, for the guidance alike of their officers and of the proprietors of bakehouses. This course was followed by your Vestry, and the Regulations, printed in large type, and mounted on card-board, have been supplied to each bakehouse proprietor in this parish.

The Regulations are as follows :—

1. Every bakehouse shall be kept in a cleanly state, and free from effluvia arising from any drain, privy, water-closet, or other nuisance. The floors shall be carefully swept at least once every 24 hours, and the sweepings shall be immediately placed in an impermeable covered receptacle, and removed from the bakehouse at not longer intervals than every seven days.
2. All the inside walls of the rooms of the bakehouse, and all the ceilings or tops of such rooms, and all the passages and staircases of the bakehouse, shall either be painted with oil, or varnished, or lime-washed. Where painted with oil or varnished, there shall be three coats of paint or varnish, and the paint or varnish shall be renewed once at least in every seven years, and shall be washed, with hot water and soap, once at least in every six months. Where lime-washed, the lime-washing shall be renewed once at least in every six months. The cleansing should be done in the months of April and October.
3. The troughs and all the utensils used in the making of bread and pastry shall be kept scrupulously clean.
4. A place on the same level with the bakehouse, and forming part of the same building, shall not be used as a sleeping place—
  - (a) Unless it is effectually separated from the bakehouse by a partition extending from the floor to the ceiling.

- (b) Unless there be an external glazed window of at least 9 superficial feet of area, of which at least  $4\frac{1}{2}$  superficial feet are made to open for ventilation.
5. No water-closet, earth-closet, privy, or ash-pit shall be within, or communicate directly with, the bakehouse.
  6. Any cistern for supplying water to the bakehouse shall be separate and distinct from any cistern for supplying water to a water-closet.
  7. No drain or pipe for carrying off faecal or sewage matter shall have an opening within the bakehouse, and every sink-waste, or other pipe used for carrying off surface water within the bakehouse, shall be efficiently trapped and disconnected from any drain.
  8. Every bakehouse shall be efficiently lighted, shall be ventilated so as to render harmless all gases and dust, and shall not be overcrowded while work is carried on therein.
  9. Every bakehouse shall be used for the purposes of the trade only.
  10. No animal shall be kept in the bakehouse on any pretence whatever.
  11. No person suffering, or who has recently suffered, from any infectious disease shall be permitted to enter the bakehouse, or take part in the manufacture or sale on the premises, of bread, biscuits, or confectionery.
  12. The owner or occupier of a bakehouse shall give immediate notice to the Medical Officer of Health of any case of infectious disease occurring on the same premises as the bakehouse.

#### PENALTIES.

Every bakehouse in which there is a contravention of Sections 3, 33, and 34 of the Factory and Workshop Act, 1878, which provide for the sanitary condition and cleansing of the bakehouse, shall be deemed not to be kept in conformity with the Act, and the occupier thereof is liable for default to a fine not exceeding *Ten Pounds*.

The use of a bakehouse for sleeping purposes, or of a room on the same level as the bakehouse, insufficiently separated from it, and insufficiently ventilated and lighted, is punishable under the 35th Section of the same Act by a fine not exceeding *Twenty Shillings* for the first offence, and of a sum not exceeding *Five Pounds* for every subsequent offence.

An infringement of the 15th Section of the Factory and Workshop Act, 1883, which prohibits—

A direct communication between a water-closet, earth-closet, privy, or ash-pit, with the bakehouse ;

The supply of water to a bakehouse from a cistern also supplying a water-closet ;

The opening into a bakehouse of a drain carrying off faecal or sewage matter ;

is punishable by a fine not exceeding *Forty Shillings*, and a further fine not exceeding *Five Shillings* for every day during which the infringement is continued after a conviction.

It only remains to add, that the number of bakehouses in the parish is 146 : 83 in North Kensington, and 63 in South Kensington.

### REGULATIONS WITH REGARD TO HOUSES LET IN LODGINGS, &c.

The Sanitary Act, 1866, Section 35, enables the Local Government Board, on the application of a Nuisance Authority, by Notice to be published in the *London Gazette*, to “declare the following enactment to be in force in the district of such Nuisance Authority, and from and after the publication of such notice the Nuisance Authority shall be empowered to make Regulations for the following matters ; that is to say :—

- 1.—For fixing the Number of Persons who may occupy a House, or Part of a House, which is let in Lodgings, or occupied by Members of more than One Family.
- 2.—For the Registration of Houses thus let or occupied in Lodgings.
- 3.—For the Inspection of such Houses, and the keeping of the same in a cleanly and wholesome state.
- 4.—For enforcing therein the provision of Privy Accommodation and other appliances and means of cleanliness, in proportion to the number of Lodgings and Occupiers, and the cleansing and ventilation of the Common Passages and Staircases.
- 5.—For the cleansing and lime-whiting at stated times of such premises.”

The Sanitary Law Amendment Act, 1874, Section 47, enables regulations made under the 35th Section of The Sanitary Act, 1866, to extend to

- “ Ventilation of rooms,
- Paving and drainage of premises,
- The separation of the sexes, and
- Notices to be given, and precautions to be taken, in case of any dangerously infectious or contagious disease, under the powers of this Act, or of the Acts therein mentioned.”

The Nuisance Authority may provide for the enforcement of the regulations by penalties, but regulations are not of any validity unless and until they shall have been confirmed by the Local Government Board.

At the meeting held November 21st, 1883, your Vestry resolved unanimously, "with reference to the large and increasing number of houses which are let in lodgings, or occupied by members of more than one family, and to the necessity, in the interest of public health, of sanitary supervision of such houses," to take steps for carrying out the provisions of the above sections of the Sanitary Acts.

The subject had been under consideration in 1878, when the staff in the Sanitary Department was increased, and in an exhaustive report on the work of the Department, which I prepared for the Special Purposes Committee it was recommended (*inter alia*) that the provisions of the Acts should be put in force by the making and carrying out of Regulations.

No action was taken upon this part of the Committee's report at the time; but in the following January (1879) your Vestry instructed the Committee to consider the steps necessary to be taken for carrying out the above recommendation. The Committee resolved, in April, to defer the further consideration of the subject, pending the completion of an enquiry, which they had requested me to make with regard to the operation of regulations in metropolitan parishes and provincial towns where the powers of the Acts had been exercised. Meanwhile I had brought the subject under the notice of the Society of Medical Officers of Health and the Society had resolved "(1) That the Acts (*viz.*, the Sanitary Act, 1866, section 35, and the Sanitary Law Amendment Act, 1874, section 47) are practicable; (2) That the Acts should be put into operation in London and other large towns; (3) That it is desirable to have a uniform code of regulations for the Metropolis, and (4) That the Society should undertake the framing of such a code."

The Council of the Society requested me to draft a code, and the draft so prepared having been approved by the Society, it was sent to nearly two hundred medical officers of health, suggestions by way of amendment being invited. Proposed amendments having been duly considered, the Council finally submitted the draft code to the Society, by which it was approved, and in May,

1879, the regulations were published for the guidance of Urban Sanitary Authorities.

I brought these suggested regulations under the notice of the Special Purposes Committee, and on the 17th June, 1879, the Committee reported, recommending that "the regulations proposed by the Society of Medical Officers of Health be adopted and forwarded to the Local Government Board for sanction." The report was referred back by your Vestry. As already mentioned, the Committee had requested me in April, 1879, to ascertain to what extent the Acts had been adopted in other Metropolitan parishes, large provincial towns, etc., and the result of my inquiries having been to show that the Acts had been adopted in few places, metropolitan or provincial, and that in the majority of such places the provisions had been executed in a perfunctory manner, the Committee finally advised your Vestry, in July, that it was not expedient to adopt the Acts at that time. The Committee were influenced to some extent, in coming to this decision, by a report that the Local Government Board contemplated framing model bye-laws for the guidance of sanitary authorities, the issue of which it was thought desirable to await; possibly also by the fact that the Board had never exercised the power conferred by the Act of 1874 of declaring the enactments to be in force in any district. Model regulations for "Houses let in Lodgings" were issued by the Board in the following year (1880), framed with regard to section 90 of the Public Health Act, 1875, (38 and 39 Vict., c. 55). The provisions of that section are practically identical with those of sec. 35 of the Sanitary Act, 1866, and sec. 47 of the Sanitary Law Amendment Act, 1874, which were incorporated in the Act of 1855, from the operation of which the Metropolis is excluded. But the regulations were not suitable for the circumstances of the Metropolis and your Vestry took no further action in the matter at that time.

At the close of the year 1883, the Local Government Board, by notice published in the *London Gazette*, declared the enactments of the Acts to be in force in all parts of the Metropolis, and they issued a circular letter, together with "Suggestions for

Regulations," 39 in number, for the guidance of the Vestries and District Boards, which had not already made regulations. Your Vestry referred the Board's communication to the Works, Sanitary, and General Purposes Committee, with a view to the framing of regulations. The Committee devoted much time to the subject; numerous communications passed with the Local Government Board, and ultimately, on January 7, 1885, your Vestry unanimously adopted regulations which were confirmed, on the 21st January, by the Local Government Board, as follows:—

REGULATIONS  
FOR HOUSES OR PARTS OF HOUSES, WHICH ARE LET IN  
LODGINGS, OR OCCUPIED BY MEMBERS OF MORE  
THAN ONE FAMILY.

INTERPRETATION OF TERMS.

In these Regulations, the following words and expressions shall have the meanings hereinafter respectively assigned to them, unless the context otherwise requires, that is to say:—

- “Registered House.”—A house let in lodgings or occupied by members of more than one family and duly registered by the Vestry.
- “Owner.”—Any person receiving the rent of a registered house from the keeper or any lodger on his own account, or as trustee or agent for any other person, or as receiver or sequestrator appointed by the High Court of Justice, or under any order of the Court, or who would receive the same if the property were let to a tenant or tenants.
- “Keeper.”—The occupier of a registered house, or the person liable to pay the rent to the owner; or the rent receiver or his appointed agent, when the whole house is let in tenements.
- “Lodger.”—A person to whom any room or rooms in a registered house may have been let as a lodging or for his use or occupation.
- “Vestry.”—The Vestry of the Parish of St. Mary Abbots, Kensington, being the “Nuisance Authority” for the Parish within the meaning of the Sanitary Act, 1866.
- “Medical Officer of Health.”—Any person appointed by the Vestry under the provisions of the Metropolis Management Act, 1855, to the office of Medical Officer of Health.
- “Inspector.”—Any person appointed by the Vestry to be an Inspector of Registered Houses.

REGISTRATION.

1. A notice shall be served on the landlord of any house let in lodgings or occupied by members of more than one family, which the Vestry proposes to

register, calling on him to state in writing, within ten days, for the information of the Vestry, any reasons why such house should not be registered. The landlord of any such house shall, within a period of ten days after he shall have been required by the Vestry, by a notice in writing signed by the Clerk to the Vestry, and served upon such landlord, to supply the information necessary for the registration of such house by the Vestry, attend, personally, or by his agent duly authorised in that behalf, at the office of the Vestry during office hours, and then and there furnish and sign a true statement of the following particulars with respect to such house, that is to say—

- (a) The total number of rooms in the house.
- (b) The total number of rooms let in lodgings or occupied by members of more than one family.
- (c) The manner of use of each room.
- (d) The number, age, and sex, of the occupants of each room used for sleeping.

Within a reasonable time after the receipt by the Vestry of the statement hereinbefore referred to, the Clerk to the Vestry shall register the house mentioned in such statement in a book to be provided by the Vestry, and shall deliver or send notice of the registration to the owner and to the landlord of the house.

For the purposes of this regulation "Landlord" means the person by whom, or on whose behalf, a house is let in lodgings, or for occupation by members of more than one family, or who for the time being receives, or is entitled to receive, the profits arising from such letting.

#### NUMBER OF LODGERS.

2. The keeper of a registered house shall not knowingly suffer a greater number of persons to occupy any room in such house, nor shall a lodger suffer any room under his control to be occupied by a greater number of persons—than will allow of air space for each person according to the following rules :—
  - (a) The minimum space for each adult in any room in a registered house which may be occupied as a bedroom only, shall be not less than 300 cubic feet.
  - (b) The minimum space for each adult in any room in a registered house which may be occupied as a sitting room and as a bedroom, shall be not less than 400 cubic feet.
  - (c) For the purposes of the foregoing rules, two children under the age of 12 years may be counted as one adult.

#### SEPARATION OF THE SEXES.

3. The keeper of a registered house, and any lodger therein, shall not suffer more than two persons of different sex; if above the age of 12 years, to occupy the same sleeping room.

## DRAINAGE.

4. The owner of a registered house shall keep all drains and drainage apparatus in proper working order and good sanitary condition.

## PRIVY ACCOMMODATION.

5. The owner of a registered house shall provide and maintain privy accommodation in the proportion of one properly constructed water-closet for every twelve persons lawfully occupying the house. Every water-closet which may be constructed in pursuance of this regulation shall be provided with a properly fitting door, and all requisite fastenings, and with all requisite water supply apparatus, and with adequate means of ventilation into the outer air. The soil-pipe shall be of impervious material and made air-tight at the joints, and shall be adequately ventilated.

## WASHING AND WATER.

6. The owner of a registered house shall cause every part of the water supply apparatus belonging to such house, to be maintained at all times in good order; and shall provide adequate accommodation for washing, and an efficient supply of water for the use of the lodgers therein.

## CLEANSING AND VENTILATION.

7. The owner of a registered house shall cause the walls and ceilings of every room and of the common passages, staircase, water-closets and out-houses thereof, to be thoroughly stopped, cleansed, and, where not papered or painted, well and sufficiently whitewashed or coloured, at least once every year, between the months of April and August, both inclusive, and at any other time when necessary. He shall strip and wash papered walls of any room after the occurrence of any dangerously infectious or contagious disease therein, and at any other time when necessary.
8. The owner of a registered house shall provide requisite means for the ventilation of every room and of the common passages and staircase thereof.
9. Every lodger in a registered house shall cause every room in his exclusive occupation to be ventilated daily, and to be thoroughly cleansed from time to time, as often as may be requisite for the purpose of keeping the same in a clean and wholesome condition.
10. In every case where two or more lodgers in a registered house are entitled to the use in common of any passage or staircase, the keeper shall cause every part of such passage or staircase to be ventilated daily, and to be thoroughly cleansed from time to time, as often as may be requisite for the purpose of keeping the same in a clean and wholesome condition.



11. In every case where a lodger in a registered house is entitled to the exclusive use of any passage or staircase in such house, such lodger shall cause every part of such passage or staircase to be whitewashed daily, and to be thoroughly cleansed from time to time, as often as may be requisite for the purpose of keeping the same in a clean and wholesome condition.

#### WASH-HOUSE, YARD, WATER-CLOSET, DUST-BIN, &c.

12. The owner of a registered house shall cause every yard and area thereof to be properly paved and drained, and shall cause the walls of every wash-house, yard and area to be lime-whitewashed at least once in every year, between the months of April and August, both inclusive, and at any other time when necessary.
13. The owner of a registered house shall cause every part of the structure of the dust-bin belonging to such house to be maintained at all times in good order.
14. In every case where two or more lodgers in a registered house are entitled to the use in common of any yard, area, or wash-house, or of any water-closet, or dust-bin belonging to such house, or of any cistern or other receptacle for the storage of water supplied to the premises, the keeper shall cause every part of such yard, area, wash-house, water-closet, dust-bin, or cistern to be thoroughly cleansed from time to time, as often as may be requisite for the purpose of keeping the same in a clean and wholesome condition.
15. In every case where a lodger in a registered house is entitled to the exclusive use of any yard, area, or wash-house, or of any water-closet, or dust-bin, belonging to such house, or of any cistern or other receptacle for the storage of water supplied to the premises, such lodger shall cause every part of such yard, area, wash-house, water-closet, dust-bin, or cistern, to be thoroughly cleansed from time to time, as often as may be requisite for the purpose of keeping the same in a clean and wholesome condition.

#### INFECTIOUS DISEASES.

16. The keeper of a registered house shall give immediate notice in writing to the Medical Officer of Health, or to the Inspector, and verbal notice to every lodger, when anyone therein is ill or dead of small-pox, typhus, enteric or typhoid fever, scarlet fever, diphtheria, cholera, or any other dangerously infectious or contagious disease, and he shall carry out without delay all measures for disinfection which the Medical Officer or the Inspector may direct.
17. Every lodger in a registered house shall give immediate notice in writing to the keeper and to the Medical Officer of Health, or to the Inspector, and verbal notice to every lodger, when anyone is ill or dead of small-

pox, typhus, enteric or typhoid fever, scarlet fever, diphtheria, cholera, or any other dangerously infectious or contagious disease, in any room occupied by him, and he shall carry out without delay all measures for disinfection which the Medical Officer or the Inspector may direct.

#### ANIMALS.

18. The keeper of a registered house, or any lodger therein, shall not suffer any animal to be kept in any part thereof, under his control, so as to render the premises filthy or unwholesome.

#### INSPECTION.

19. The keeper of, and every lodger in, a registered house shall allow such house and every part thereof to be inspected by the Medical Officer of Health, or the Inspector, on his application, at any hour, and shall not obstruct him in the execution of his duty, provided always that no inspection by the Inspector shall take place between the hours of 9 p.m. and 6 a.m., without the written authority of the Medical Officer of Health.

#### PENALTIES.

20. Every person who offends against any of the foregoing regulations shall be liable to a penalty not exceeding forty shillings for any one offence, with an additional penalty not exceeding twenty shillings for every day during which a default in obeying such regulations may continue.

Your Vestry having delegated to the Works, Sanitary, and General Purposes Committee the duty of taking the necessary preliminary steps towards the registration of houses, the Committee prepared a report defining the "mode of procedure," which was approved by your Vestry, as follows :—

- (a) Notice will be served on the landlord of each house, calling on him to state in writing, within ten days, for the information of the Vestry, any reasons why the house should not be registered.
- (b) Should the landlord fail to state any reasons, or state reasons of an insufficient character, why the house should not be registered, the Clerk to the Vestry will serve upon the landlord a notice in writing calling upon him to attend at the office of the Vestry within a period of ten days, for the purpose of supplying the information necessary for the registration of his house by the Vestry, in conformity with the first regulation.
- (c) Within a reasonable time after the receipt of the landlord's statement, or failing the receipt of such statement, the house will be registered by the Clerk to the Vestry, in a book to be provided by the Vestry, and notice of the registration will be delivered or sent to the owner and to the landlord of the house.

- (d) The inspector for the district will then proceed to inspect the house and measure the several rooms therein to ascertain, by estimation of cubic capacity, how many persons may lawfully occupy each room, by night only, or by day and night, and also for the purpose of ascertaining that the condition of the house, structurally, in respects of its sanitary arrangements, &c., is in conformity with the regulations as defined by the "Instructions," adopted by the Vestry at the meeting held February 11th, 1885.
- (e) Within a reasonable time after such inspection the necessary particulars will be entered in the Register ; a card stating the number of persons who may lawfully occupy the several rooms will be given to the keeper of the house ; copies of the regulations will be supplied to the owner, the keeper, and the several lodgers in the house, and thenceforth the house will become subject to the regulations made by the Vestry on the 7th day of January, 1885.

Subjoined is a copy of the " Notice " sent to the landlord, in conformity with (a).

*" Sanitary Act, 1866, 29 & 30 Vic., cap. 90, sec. 35 ; and*

*" Sanitary Laws Amendment Act, 1874, 37 & 38 Vic., cap. 89, sec. 47.*

" Sir,—I am directed by the Vestry of Kensington to inform you that they propose to register the house , No..... of which you are the landlord, in conformity with the provisions of the above-cited Acts.

" I enclose a copy of the Regulations made by the Vestry, and confirmed by the Local Government Board, for houses let in lodgings, and registered.

" On Page 2 you will find a summary of the provisions of the Acts.

" To prevent misconception, I am to state that the registration of a house will not make it a Common Lodging House under the provisions of the Common Lodging Houses Acts, which are administered by the Police Authorities ; that there will be nothing affixed to the house to indicate that it is registered, and that, so far from any disadvantage attaching to a house because it is registered, the Vestry are of opinion that the fact of registration may rather be expected to add to the value of the house, by proving that it is in good sanitary condition, and safely habitable.

" Should you, after the above explanation, desire to state, for the information of the Vestry, any reasons why the above-mentioned house should not be registered, you will please do so (in writing) within ten days. Should you fail to state any reasons, or state reasons of an insufficient character, why the house should not be registered, the Vestry will desire you to supply information for the registration of the house , as set out in the first Regulation."

" I am, &c."

On the recommendation of the Committee your Vestry adopted the following "Instructions" to the Sanitary Inspectors for their guidance in connexion with the Regulations :—

**Every Inspector to see :—**

1. That all cisterns are periodically cleansed and properly covered.
2. That all waste pipes from sinks, cisterns, baths, &c., be disconnected and empty themselves over, or preferably, near surface gratings, and outside the house where practicable.
3. That the drains under all such gratings be efficiently trapped.
4. That the paving of yards be laid to a fall towards such gratings, with the joints of such paving grouted or pointed in Portland cement or other impervious material.
5. That all drains be trapped from the Sewer outside the wall of the house next the Sewer.

NOTE.—*Where convenient or practicable an intercepting chamber with a close-fitting cover and an air-pipe should be recommended.*

6. That all house drains are air-tight.

NOTE.—*Where there is reason for believing that any house drain is imperfect, notice must, if necessary, be given to the Surveyor, who will provide workmen for opening it up for examination.*

7. That all special soil pipes be air-tight at the joints, and carried, full diameter, above the roof, at a safe distance from windows and chimney tops.
8. That all rain water-pipes used as soil pipes be air-tight at the joints.

NOTE.—*The use of "combined soil and rain water pipes" is a bad arrangement and should be discountenanced.*

It only remains to mention that at the present writing (June), the regulations are in course of being applied in respect of a few houses, and that the work of registration is proceeding, but very slowly. The reasons are not far to seek, for, in the first place, no addition to the staff of officers has been made, and the work is being carried out, as far as practicable, by the Sanitary Inspectors, all of whom, moreover, have just been made Inspectors under the Adulteration Act; and, in the second place, registration has proved very distasteful to the owners and keepers of the houses proposed to be registered, who have taken advantage of the opportunity afforded by the terms of the first regulation to delay registration by every possible objection, the keepers, moreover, of the several houses having uniformly neglected to attend at your Vestry's offices to supply the necessary information.

## THE HOUSING OF THE WORKING CLASSES.

In connection with the "Registration of Houses let in Lodgings," reference may fitly be made to the Report of Her Majesty's Commissioners for inquiring into "the Housing of the Working Classes." The Report is based upon the testimony of numerous witnesses, including many whose evidence relates to the housing of the poor in London. Among these there were the Medical Officers of Health for Bermondsey, Hackney, and St. Pancras, the Vestry Clerks for Chelsea, Clerkenwell, and St. James's, Westminster, two vestrymen, of Clerkenwell, six clergymen and sixteen School Board visitors, in addition to architects, surveyors, landed estate agents, railway directors, directors of Artizans Dwellings' Companies, and officers of police. Lord Shaftesbury, Sir Sidney Waterlow, Miss Octavia Hill, and Mr. George R. Sims also gave evidence.

The subject of the inquiry naturally divides itself into causes of existing evils, remedies and recommendations. Under each of these heads the remarks of the Commissioners are copious and full of interest.

So many questions are dealt with that it is difficult to make a selection for reference.

No question, however, is of greater importance, or more deserving of consideration, than "overcrowding," which may be described as the dominating evil which gave rise to the appointment of the Commission, and on this subject the evidence is full and the report emphatic.

The Commissioners note that "the single room system for families is widely extended," and, that, as a natural consequence, "overcrowding is more serious than ever it was." Admitting this to be the fact, it is an obvious remark that the increased overcrowding must be local and partial, for there were not more persons living in a house in London, on an average, in 1881, than in 1861 and 1871. Lord Shaftesbury is responsible for the statement, which I do not think to be at all generally

correct, that the "single room system leads to the single bed system," which, he says, is the cause of immoralities of a shocking description, the existence of which, in any general sense, is denied by other competent witnesses. The Commissioners remark that "there is much legislation designed to meet the evils of overcrowding," which is spoken of as a "public scandal," but that the existing laws are not put in force," (page 4). The reference here is made to Section 19 of the Sanitary Act, 1866, which enlarges the definition of a "Nuisance" so as to include "any house, or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates." Under this Section proceedings for the abatement of overcrowding are taken from time to time, by every Sanitary Authority in the Metropolis. But the difficulties in the way of any large application of the power are almost insuperable, whether regard be had to the state of the law itself, which favours delay, or to the causes which lie at the root of the overcrowding, and which it is beyond the power of the Sanitary Authority to rectify. It must be admitted nevertheless that overcrowding, regarded from whatever point, is a great evil. To go no further, it tends to the physical deterioration of its victims, and unfits them for the performance of their daily tasks. It is frequently the result of "demolitions," so that the improvements undertaken at great cost, nominally for the benefit of the working classes, have rather served to aggravate than to remedy the evil, because the new model buildings erected on the cleared sites do not provide for the requirements of the poor whom the demolitions displace (page 20), and who migrate to already overcrowded districts, but with the consequence of keeping up, or raising, the already too high rents.

All who have to do with sanitary administration will be prepared to admit that the "single-room system" is "widely extended," but it must be admitted also that this is not from choice, but the natural result of poverty and of the excessive rent exacted from the poor. High rents are the consequence of scarcity of accommodation, leading to competition for rooms, owing, among other things, to the necessity the poor are under of "living near their work." The Commissioners refer to instances of over-

crowding associated with the single-room system, especially in some, perhaps the worst portions of the Metropolis "selected for minute investigation" (page 6) which appear to be regarded as typical of the poor districts generally. Details, however, as to the size of the rooms and the age of the inmates are not furnished, so that we are not in a position to gauge the degree of the overcrowding, or, in other words, to ascertain to what extent the provision of cubic space is below that sanctioned by the Local Government Board in Regulations for Houses let in Lodgings. It is abundantly proved that poverty, not unfrequently the result of intemperance, is the common cause of overcrowding. It is said that, in one large and densely populated district, 88 per cent. of the poor pay more than a fifth part, and 46 per cent. from one-fourth to one-half of their income, by way of rent, and that the average price of one, two, and three unfurnished rooms, respectively, is 3s. 10½d., 6s., and 7s. 5½d. weekly; and yet, by implication, as I have said, the blame for overcrowding is laid upon the Sanitary Authorities. Overcrowding cannot be abated speedily. Notices and summonses, with all the attendant delays, to be referred to later on, when treating of other nuisances, stand in the way, and it is by no means easy to put the law into action. But, granting it were otherwise, and that we could abate overcrowding at will, one may ask should overcrowded rooms be emptied *en bloc*? Coming down to the individual case, the question that naturally arises is—Can the family that overcrowds a single room afford to pay a higher rent? If not, where are they to go when turned out of their poor home, for they must go together—all or none? Where can they get a second room for the money available for rent? If no place is open to them, what is gained by turning them into the streets? Practically there is no place where they can go, unless it be the Workhouse, and these would not hold a tithe of the number displaced if wholesale eviction were possible. The Commissioners recognise the difficulties of the case, and, practically acquit the Sanitary Authorities of serious blame by their references to the practical universality of overcrowding in the densely populated districts, to the necessity the poor are under of living near

their work, as well as by their remarkable recommendations, designed to mitigate the evil, especially by the provision of sites for the erection of tenement dwellings. Should these recommendations be carried into effect, it is to be feared that they will only very partially, and locally, supply the want, and it will be necessary to secure to the right persons—labourers, general dealers, widows with families, etc., of the lowest and most necessitous classes—the use of the new buildings, to the exclusion of clerks, artisans, &c., who now fill the Peabody and similar model dwellings, the rents for which place them out of the reach of the very poor.

The drink question is discussed in its bearings on the main question, Intemperance being characterised as at once the cause and the consequence of overcrowding. “Drink and poverty act and re-act upon each other.” It is but too true that drink often runs away with the money that might otherwise be available to procure the luxury of a second room. “Want of thrift” is a marked failing among the poor, many of whom might get better lodgings if they were more economical in their expenditure. But work is uncertain and “wages are low and precarious.” “Dirt,” a natural consequence of overcrowding, is rightly described as “an evil almost as conducive to social misery as drinking and other self-indulgences.” “The poor are not cleanly in their habits,” whether regard be had to the state of their homes or of their persons.

Among other sanitary defects described as co-existing with over-crowding, reference is made to deficient water supply and water-closet accommodation, in tenement houses “which, as a rule, were originally constructed for a single family.” The water-closet accommodation is stated to be “most defective in spite of the extensive powers confided to Local Authorities by the law in this respect.” It may be doubted whether the “powers” are not over estimated, but, be this as it may, the statement does not admit of general application, and it was made probably without full knowledge of the efforts of sanitary officials to improve the accommodation. Defects in the condition of the water-closets, moreover, are largely the result of the destructive and uncleanly habits of certain classes to which the Commissioners refer (p. 16).



The water supply is "better than it was," but "its inadequacy is still the cause of unhealthiness and misery," due, in some degree, doubtless, to insufficient means of domestic storage. To a larger extent, however, I believe, "unhealthiness," in connection with the water supply, is due to neglect on the part of the inmates to cleanse the receptacles, the quality of the water not being in question. The Commissioners recommend that the water supply should, as a general rule, be in the hands of the Local Authority, and that the Companies should be deprived of their summary powers to cut off the water. The supply, I would add, should be "constant."

"There is much room for improvement in the matter of dustbins, doubtless"; but it would be better to abolish dustbins altogether and to insist on a daily removal of "house refuse."

The improvement as regards the drainage of London in the present generation, is well described as being "enormous," the "system of house drainage having become universal, with remarkable effect on the death rate": still, "there is much misery produced by bad drainage." This, no doubt, is the fact, but the continuance of bad drainage is largely due to the defective state of the law, involving delay and difficulty in the removal of nuisances.

"Ventilation is defective; what is wanted is 'unused air.' But this is difficult of attainment, owing to the ignorance of the poor in all sanitary matters." Rapid change of air means lowered temperature, which the ill-fed and ill-clothed cannot bear. They "block out draughts," and they huddle together for warmth.

"On the whole, more," it is said, "has been done to remedy sanitary defects than structural defects," and this, no doubt, is so, the power being greater for the one purpose than for the other.

The Sanitary Authorities are charged with general remissness in carrying out the duties imposed on them by law, and, severely blamed for their neglect to make "Regulations for Houses let in Lodgings," under the provisions of the Sanitary Act, 1866, section 35 of which contains "a remedy for some of the evils described," but is "likely to remain a dead letter in many districts until some improved means be devised of putting it in action."

The "improved means" are not indicated. Nothing probably would be more conducive to the end in view than the imposition of a statutory obligation on the Sanitary Authority to register all tenement houses "occupied by members of more than one family." Such a step might be taken with advantage in the interests of the working classes, but it is one which, in all probability, they would resent, and which, with their increased political power, they would be able to defeat. Universality of application, however, might take the sting out of "registration."

Commendation is bestowed on the authorities of Hackney and Chelsea for having made Regulations. But at Hackney, we are told, faulty owners and occupiers are *threatened* with the registration of their houses. The regulations are spoken of as if they were *penal*, and it is said that the people "migrate" rather than submit to them, so that the effect of registration is to drive the poor out of the parish to overcrowd other districts where regulations are not in force. This would not be the case if registration were general. But registration can never become general—I will not say popular—so long as it is held over people *in terrorem*. At Chelsea, we are told there is "practically no overcrowding" as a result of the regulations—a statement to be taken with due reservations, seeing that "great numbers of the houses" in that parish are "very small," and that in 1881 there were 7·6 persons, on an average, to each house as compared with 7·8 in the Metropolis generally. The Commissioners appear to be under the impression that inspection and sanitary improvement are neglected in parishes where Regulations are not in force. But this is not so, and it may be truly said, referring without offence, to the only case offered for comparison, that the amount of inspection and sanitary work described as having been carried out in respect of "registered houses" in Chelsea is small, by comparison with the work of a similar character done in some other Metropolitan parishes where the section is not in operation.

Leeds, among provincial towns, is cited as a place where "the regulations seem to be worked with much energy, 1,235 visits of inspection having been made" in one year, and "the

result of their working is shewn by the comparatively satisfactory condition of the town." But the general death-rate of Leeds, in 1884, was 23·1 per 1,000, as compared with 20·3 in London, and the zymotic death rate was 4·8 as against 3·3.

At Birmingham, only 210 houses are registered. At Bristol, where the section, though nominally in force, is not in operation, the regulations are "held *in terrorem* over the people concerned," who are used to be "*threatened* with registration, if they do not abate overcrowding, with good effect," an unjustifiable practice, not calculated to popularise the law or to attain the object Parliament had in view in passing the Act.

Perhaps no scheme could be devised better calculated to improve the housing of the very poorest classes than that which is in operation at Glasgow, and to which the present Home Secretary refers with approval, in a "Memorandum" in the supplementary report (page 66). There "the lowest class of the population, the waifs and strays, too poor or too improvident to be able to rent houses, are provided with furnished airy lodging houses, with large day rooms, lavatories, &c., where each has a separate clean bed at the charge (including use of cooking range and utensils) of 3½d. per night, and these institutions are so managed as to be self-supporting, including 5 per cent. interest on the capital." This would be an improvement upon the system in vogue in England under the Common Lodging Houses Acts administered by the Police, and which I remember to have heard Lord Shaftesbury commend as the perfection of sanitary administration applied to the housing of the poor.

On no point are the Commissioners more emphatic than with reference to the failure of Local Authorities to put existing legislation into force. They admit that "legislation is capable of amendment," but for what is wrong they blame "failure in administration." The legislation referred to is comprised in—

The Labouring Classes' Lodging Houses Act (Lord Shaftesbury's Act).

The Artizans' and Labourers' Dwellings Act (Torrens's Acts).

The Artizans' and Labourers' Improvement Acts (Cross's Acts).

The Nuisances Removal Acts, and

The Sanitary Act, 1866, sec. 35, already alluded to.

The Commissioners themselves, however, explain the causes of the failure of the several Acts, so far as, in the past, they have been inoperative, and their explanations amount to a practical exoneration of the Sanitary Authorities from blame in the matter.

As regards Lord Shaftesbury's Act, which has been "an absolute dead letter" for 34 years, the Act is shown to be, in its present form, unworkable, and the Commissioners have made recommendations with the view of enabling it to be put into operation.

As regards Torrens's Acts, the process for putting the provisions of them into force, always a tedious one, and affording many opportunities for obstruction, has been complicated to the extent of making them unworkable, by the section, in an amending Act, which enables the owner of the unhealthy premises to call upon the Local Authority (the Vestry) to purchase the property. Let it be supposed that the Local Authority has decided to put the Acts into operation in a given case, then all the steps so clearly set out in the Report (page 5) must be taken in their due order. The owner, meanwhile, need do nothing, for, at any time within three months from the date of the service of the "order" of the Local Authority, for structural works of repair or for demolition, he may "require the Local Authority to purchase the premises, the price being determined, in case of dispute, by arbitration." In practice, this requirement of the owner would usually be found to bar all further proceedings. If, however, the owner neither does the work ordered, nor requires the Local Authority to purchase, the Local Authority may enter and "do what is necessary," subject to the owner's right to appeal against the order. If the order is for demolition it may be difficult to prove that the house cannot be repaired and made habitable. If, however, the order is confirmed on appeal, a process in which much time and money will have been expended, it is still open to the owner to require the Local Authority to purchase. And if the property should thus,

at last, be purchased by the Local Authority “they must apply it for the construction of new dwellings, or the improvement of existing ones, for the working classes, or for the opening out and widening of courts and alleys”—all very good purposes, but, as a rule, unremunerative. In the last extremity, should the Local Authority neglect or refuse to act, the Metropolitan Board of Works, on appeal by the Board of Guardians, or the owner of a neighbouring property, may step in and do what is necessary at the expense of the Local Authority. But the Board has never exercised this power, a fact from which it may be fairly inferred that they have not a high opinion of the practical value of the Acts. The Commissioners recommend that the provision requiring the Local Authority to purchase, should be repealed. But this is not enough. Appeals likewise should be abolished, together with the restrictions on the action of the Local Authority in regard to the future use of the lands.

As regards Cross's Acts, which “deal with whole areas where the houses are so structurally defective as to be incapable of repair, and so ill-placed with reference to each other as to require, to bring them up to a proper sanitary standard, nothing short of demolition and re-construction,” the expense of putting them in force, over and above any possible recoupment, sufficiently accounts for the reluctance of the Local Authority (the Metropolitan Board of Works) to take up fresh “schemes,” even under the amending Act of 1882. What has been done, hitherto, under these Acts is but as a drop in the bucket, and yet the eleven schemes carried through, and dealing with a very limited total area, have involved a nett loss to the ratepayers of £1,250,000, of which £400,000 is estimated to be due to excessive valuation of property, which was so bad that demolition was the only possible remedy for the evils to which it gave occasion. These Acts will remain practically inoperative until the law makes it an offence to let unhealthy dwellings, and gives to the Local Authority the power to take possession of unsanitary property at the market value of the land, so that “improvement schemes” may be carried out at the cost of the parties whose neglect has made them necessary, and not, as

at present, at the cost of the overburdened and injured ratepayer. "Democratic communities," it is shewn, are willing to entrust exceedingly autocratic powers to the sanitary officers, and will not suffer the owner of unhealthy houses to profit by the misery of the classes whose poverty allows them little choice in the selection of a dwelling-place. Instances are cited of power possessed for closing and even for destroying premises without compensation, failing attention to orders and notices (pp. 69-70).

As regards the Nuisances Removal Acts, under which tens of thousands of nuisances are abated every year in London, they afford abundant opportunities for obstruction to a litigious owner of house property, there being no speedy means for compelling the abatement of a nuisance under any existing law, and no punishment for the person by whose default the nuisance has arisen. The Commissioners recommend that there should be such a punishment, viz., by the infliction of a penalty, at the discretion of the Justices, and to a certain extent this recommendation, if carried into effect, would, through the influence of a wholesome fear, tend to bring about the abatement of nuisance by the person on whom the Vestry's notice is served.

The Commissioners have taken note of the Sanitary Authority's "powers," but have underrated or overlooked the "difficulties" which often prevent those bodies from putting the law into effective motion. The difficulties, as I have shewn, are partly inherent in the law itself, and partly incident to its method of administration, when once this has passed out of the hands of the Local Authority into those of the Judicial Authority. The tendency is to regard the "Nuisance Authority" as all powerful, but apathetic, and blame is often lavished on authority and officials alike, when there is failure to abate a nuisance upon discovery or report. But it may be truly said that the law is at once too leisurely in its movements, and too considerate for the "rights of property," to allow this to be done. The chief offenders, owners of tenement houses, know by experience that they incur little risk by disregarding for a considerable period the requirements of the Nuisance Authority.

What is the course of procedure in such a case? Notice of the nuisance must be given by a duly-appointed officer to the constituted authority, whenever it may happen to meet, and such notice as it may direct is then served upon the person by whose act or default the nuisance is caused. Time has, of course, to be allowed for the abatement of the nuisance. If the terms of the notice are not complied with, a summons may be taken out. This is rarely made returnable in less than a week. The hearing, moreover, may be postponed, owing to press of other business, or it may be adjourned. But should the case be clear, and get decided without delay, the Justices can only make an "Order" for such work to be done as they may consider necessary for the abatement of the nuisance: their power, however, is very considerable in this respect. Usually, of course, the "Order" runs on all fours with the previous "notice." After the Order has been prepared and signed by one of the Justices, it must be served. Ample time is allowed, too much time often, for carrying out the terms of the Order, and it is only after the lapse of the time limited by the Order that, in case of disobedience, penalties begin to accrue at the rate of not more than ten shillings *per diem* from the date of service of the Order. The issue of a summons for penalties probably rouses the defendant to the necessity of action, and generally before the hearing (that is, within seven days) the Order will have been obeyed, and the nuisance abated. The Judicial Authority is thus propitiated—supposing the Nuisance Authority thinks it worth while to go into court to press for penalties; and either the offender is let off entirely, or, as often happens, the diurnal penalty inflicted is nominal. The proceedings by this time will have lasted for weeks—often for many weeks—and meanwhile the wretched inmates of the house may have been suffering in health and comfort without remedy. Nay, more, they will think themselves fortunate if they are not made to pay an increased rent to compensate their landlord for the trouble and expense to which he has been put! All this is bad enough, but in an extreme case the Fabian tactics are not yet exhausted. Notice of appeal to Quarter Sessions, against the Order of the Justices, may be

given. Weeks, nay months, may elapse before the appeal can be heard, the nuisance continuing unabated. Prior to the hearing, the work is done; the appeal is withdrawn and, *causa finita est!* This is no imaginary picture. I am describing an actual case within my own experience.

As regards the Lodging-house Clauses of the Sanitary Acts, it is to be regretted that they have not been more generally put into operation; but, as I have intimated, inspection of such houses as would be registered, is a matter of every day routine work in all parts of London—though it is quite possible, as the Commissioners more than hint, that the inspection varies widely in quality and in extent. A principal advantage of the Acts is that you have not to prove nuisance, but only breach of the regulations, to bring the penalty clause into operation; but it must be remembered, and it is an important fact which appears to have been overlooked, that the infliction of penalties is a matter entirely within the discretion of the Justices.

Little account has been taken of the fact that whatever advantages in the way of improved house accommodation may come to the working classes, through the operation of the Sanitary and Nuisances Removal Acts, the expense of procuring them will, in the long run, and at a heavy ratio of cost to improvement, have to be borne by the classes benefitted. Poor people know this, and it is the explanation of their silence in regard to sanitary defects. The Inspector is not ubiquitous, and those who most need his help are those who most dread his visit. If they are suspected of complaining they are liable to be turned out of house and home, and in any case they are, usually, made to pay heavily, by way of increased rent, for whatever improvements, or work of cleansing, &c., may be effected through the instrumentality of the Sanitary Authority and its officers.

I have felt it my duty thus to show that the duty which devolves on the Sanitary Authority is not so easy as at first sight it might appear, and did time permit it would not be difficult to prove that under circumstances not wholly favourable to sanitary administration, much good work has been done—as indicated by the marvellous



salubrity of this great London as a whole. That the "failure" has not been so exclusively in regard to "administration," as alleged, no better proof can be desired than the recommendations of the Commissioners for "amendment of legislation," especially of the Acts under which the Sanitary Authorities derive their powers. The subject is too extensive to be entered upon here, but I may be permitted to observe that the recommendations of the Commissioners agree closely with the views expressed in my address on "Metropolitan Sanitary Administration," delivered, in October last, before the Society of Medical Officers of Health, by whose direction a copy of the address was forwarded to each of the Commissioners.

Among other amendments of law recommended, it is proposed that there should be a simple power, by civil procedure, for the recovery of damages against owners or holders of property by those who have suffered injury or loss by their neglect or default in sanitary matters (p. 56). It is also recommended that mortuaries should be provided throughout the Metropolis. But this has been done to a large extent, and what is even more necessary is power to compel, in suitable cases, the use of mortuaries. The Commissioners recognize this fact by their recommendation that "in the event of a death from infectious disease the body should forthwith be removed to a mortuary in cases where it would otherwise be retained in a room used as a dwelling by others." They think it desirable, moreover, "that in any case where the body lies in a room which is used by other persons, it should, in the same manner, be removed" (p. 31).

Not the least valuable of the Commissioners' recommendations is that for the Consolidation of Existing Sanitary Laws, with amendments in regard to the provision of mortuaries, and in regard to cellar dwellings; the Sanitary Inspector, in respect of such dwellings, to occupy the position now filled by the District Surveyor, who is an officer of the Metropolitan Board of Works.

Reference is made by the Commissioners to the inequality and the inadequacy of the sanitary staff in different parishes and districts, in proportion to population; to the need for improvement

in the "system" of inspection, and to the need for "large powers of inspection as a remedy for many evils." Passing by the fact that not one Metropolitan Sanitary Inspector was called before the Commissioners, and that, so far as appears, the Commissioners were without knowledge of the immense amount of inspection and sanitary work being carried on from day to day, as set out in the statutory annual reports of the Local Authorities and their officers, I conclude by observing that when the proposed "large powers" shall have been conferred, and when the causes of present "failure in administration," shall have been removed, by "amendment of legislation"—primarily directed to secure increased rapidity in procedure—grounds for complaint will, as I sincerely believe, be largely diminished even if they do not cease to exist.

[ADDENDUM.—After the above section of the report had been completed, it was publicly stated by Sir Charles Dilke, the late President of the Local Government Board, who is also the Chairman of the Royal Commission, that the Prime Minister, Lord Salisbury, who moved the appointment of the Commission, would bring in a Bill, during the present Session, for giving effect to the recommendations in respect of which the Commissioners were unanimous, and that he himself would probably take charge of the measure in the House of Commons. Accordingly, in the present month (July), a Bill entitled "Housing of the Working Classes (England) Act, 1885," was introduced by Lord Salisbury in a remarkable speech, from which it may be inferred that the Bill is only an instalment of the good things which some of the leading statesmen of the two great parties desire to bestow on the Working Classes. That their labours may be attended with success and lead to a most necessary reform, which will have far-reaching effects, by improving the moral and physical welfare, and increasing the happiness, of the people, must be the earnest desire of everyone who has the true interests of his country at heart.

The following is a brief summary of the provisions of the Bill :—

Section 1 deals with the Labouring Classes, Lodging Houses, (Lord Shaftesbury's) Acts, and is an attempt to make them workable by simplifying

the machinery. The Acts are to be made to apply to all parts of the country, and may be adopted for the Metropolis by the Metropolitan Board of Works, if one of her Majesty's Principal Secretaries of State approves of such adoption.

Section 2 enables the Local Authority to provide separate houses or cottages for the labouring classes, whether containing one or several tenements.

Section 3 enables Her Majesty and the Justices for Middlesex, in the event of the removal from their present sites of certain prisons in the Metropolis, to sell and convey the sites to the Metropolitan Board of Works, at such price as will enable the Board, without incurring serious loss, to appropriate the sites for the purposes of the Acts, as amended by the New Act.

Section 4 is an amendment of Torrens's Acts, and takes away from the owner of any premises who is required to repair or demolish such premises the power to require the Local Authority to purchase them. If the Local Authority fail to act upon the report of the Officer of Health that any premises are unfit for human habitation, &c., within a reasonable time, any Sanitary Authority, or other Local Authority, having jurisdiction in or near the parish or place, or the owner of adjoining property, may complain of such failure to the Local Government Board, which, after inquiry may order the Local Authority to put in force the said provisions.

Section 5 amends Cross's Acts, and extends them to all Urban Sanitary Districts. If the Local Authority fail to prepare a "scheme," after having received an "official representation," the confirming Authority, after inquiry, may direct the Local Authority to make a scheme for the improvement within a given time.

Clause 6 refers to loans, &c.

Clause 7 states that it shall be the duty of a Local Authority to put in force its powers to secure the proper sanitary condition of all premises within its district.

Section 8 amends the Lodging-house Clause of the Public Health Act, 1875, enabling a Sanitary Authority to make bye-laws without the previous declaration by the Local Government Board that the section is in force.

Section 9 refers to the housing of hop and fruit pickers, &c.

Section 10 brings tents, vans, &c., used for human habitation, under inspection and sanitary control, with power of entry to authorised person.

Section 11 applies to certain provisions of this and other Acts as to bye-laws.

Section 12, with the view of cheapening land, amends the Settled Land Act, 1882, as regards the erection of buildings for the working classes, by enabling land to be sold or leased for less than the highest price or rent obtainable. It also enables improvements on which capital money may be expended, to include, in addition to cottages for labourers, &c., whether employed on the settled land or not, any dwellings available for the working classes. The same power to sell or lease land is given to corporate bodies. The expression "cottage" may include a garden of not more than half-an-acre, provided that the estimated annual value of such garden shall not exceed £1.

Section 13 enacts that in any contract for letting an unfurnished house for human habitation there shall be implied a condition that the house is in all respects reasonably fit for such habitation. Such condition is implied by existing law on letting a furnished house. In the event of a breach of such condition, any inmate of such house who suffers any loss, by injury to health or otherwise, in consequence, shall be entitled to recover damages from the person responsible for such breach.

Sections 14 to 18 comprise definitions, short title of Act, and limits its operation to England.

It will be seen that a large part of the Bill is directed to the endeavour to facilitate the working of the existing Acts. "Our task," said Lord Salisbury, confirming what I have already written on the subject, "has principally been to suggest alterations that would secure a more ample and rapid execution of the law, and we believe if that can be done the sanitary evils will altogether disappear."\* To what extent this object will be attained, should the Bill become law, time only can shew. But however valuable in effect the proposed amendments of those Acts may prove, it may be confidently anticipated that Section 13 will always be regarded as the central feature of the Bill. In October last, I directed attention to the subject dealt with in that section, but I do not anticipate that my views—that "there should be an implied warranty when a house is let that it is in a proper sanitary condition," and that this warranty should be "established as a principle of English Law"—would so soon be endorsed by such a body as the Commission. Still less could I anticipate that such views would so soon find expression in a Bill introduced by a Conservative Prime

---

\* The Prime Minister had previously said in his speech, introducing the Bill, "The Sanitary evils . . . are in process of fairly rapid cure. In truth, if the law as it exists was fully exercised, these evils would hardly remain." Then follow the words quoted in the text. His Lordship continued, "The most cheering point with respect to the sanitary evils is that with the increase of civilization, and with the progress of the community, they tend to vanish altogether, and they differ in this respect from the evils of overcrowding. The more prosperity increases, the more sanitary evils vanish; but the more prosperity increases, the more there is the danger, unless care is taken, of overcrowding." Referring to the cause of overcrowding, in another part of his remarkable speech, Lord Salisbury said, "The difficulty in London lies in the enormous distance which the circumference lies from the centre. In other places it is possible to meet it by building cottages on the outskirts, but that cannot be done in London, because of the distance being so great." Hence the necessity for providing the special "facilities" (by section 3) for procuring "sites" for the erection of dwellings for the most necessitous classes." The quotations are from the *Times* report of the Prime Minister's speech.

Minister, with the approval of the Chairman of the Commission who was so lately at the head of the Local Government Board. Under such auspices even so remarkable a provision may be expected to pass in some form despite the opposition with which it will inevitably be met.

Observing that no provision was made in the Bill for giving effect to the unanimous recommendation of the Commissioners, that the Justices should have power to mete out punishment by penalty on the person by whose default nuisance was caused, I ventured to call the attention of Sir Charles Dilke to the omission, when I was favoured with a communication from the Secretary to the Royal Commission, intimating that a "Consolidation Bill" had been prepared at the same time with the Housing Bill, and that Clause 9 of that measure provided for penalty in the circumstances named. The companion Bill will, I presume, be introduced next Session, whichever "party" may be in power.]

### UNHEALTHY HOUSES.

Prior to the introduction of the "Housing Bill" referred to above, I had made notes of two recent sanitary actions involving important issues for landlords and tenants, and which may be mentioned here in proof of the necessity for Clause 13 of the new Bill, to define the responsibility of landlords, and the rights of tenants.

The first case (*Chichester v. Lance*) was tried before Mr. Justice Wills and a Special Jury. The action was to recover damages from the defendant, who was said to have permitted the drains of the house he let to the plaintiff to remain in a dangerously defective condition. The case does not seem to have been a bad one as against the landlord, who had not been in possession of the house a long time, and he did not decline to recognize his responsibility. But the repairs, when undertaken, were alleged to have been imperfectly executed, and an illness ("typhoid") resulted, which the medical evidence went to shew, and the Jury found, was directly attributable to the insanitary condition of the drains. Damages were assessed at £45. The

second and more important action, (*Lowndes v. Pawley*), has been recently tried in the Court of Queen's Bench. A married lady died last year from the effects of blood poisoning induced by sewer gas, which escaped into her house at Croydon, owing to defective sanitary arrangements. The lady had an income of £1,000 a-year which died with her, and her husband brought an action against the owner of the house (an architect) to recover damages to cover expenses incurred, and compensation for the loss of property sustained by his wife's death. The defendant, who built the house, had assured the plaintiff that it was in a perfect sanitary state, as no doubt he believed it was, and yet it was discovered that the joints in the soil-pipe were defective, allowing foul air to pass; that a trap in connection with a rain-pipe, supposed to exclude foul air, was broken and useless, and that a drain was obstructed by broken bricks found within it. A peculiar feature in the case was that the drainage appears to have received the approval of the local sanitary authority, but this fact did not avail to relieve the defendant from his responsibility, and the Jury awarded damages to the amount of £2,000, in addition to the amount claimed as expenses, besides rescinding the agreement as to the house. Owners of house property, and especially owners of unhealthy houses, would do well to take note of these decisions, which are not likely to be forgotten by persons who may have the misfortune to find themselves in occupation of defectively drained houses, and to be sufferers in consequence. The decisions, regarded from a public health point of view, cannot fail to have good results, even if Clause 13 of the Housing Bill should fail to become law.

## REFUSE.

Great difficulty is constantly experienced in preventing nuisance from accumulations of offensive matters coming under the general description of "REFUSE." The difficulty is common to all parts of the Metropolis and calls for legislative interference for its abatement. With a view to such steps being taken I brought the subject under the notice of the Society of Medical Officers of

Health, in 1880, the result being that a Special Committee was appointed to consider the subject. The report of the Committee was printed in my Annual Report for 1880 (*page 114*). The conclusions at which the Committee arrived may be summed up as follows :—

1. *Trade Refuse*.—The Nuisance Authority should have power to collect, remove, and dispose of the trade refuse of butchers, fishmongers, poulterers, greengrocers, etc., at the reasonable cost of the producers. The collection of such refuse should be made in the early morning, and the removal effected in specially constructed vehicles: if practicable the refuse should be utilized; otherwise it should be destroyed by fire.
2. *House Refuse*.—In view of the increasing distance to brickfields, house refuse will have to be dealt with by fire, in specially constructed apparatus of the “Destructor” type, by which its bulk may be reduced some 75 per cent., the resulting product, moreover, being at once innocuous, and useful for road-making and other purposes: the refuse should be collected daily, and “dustbins” abolished.
3. *Stable and Cowshed Refuse*.—The Nuisance Authority should have power to collect the refuse at the reasonable cost of the owner; cowshed refuse daily, in vehicles designed to prevent slopping and effluvium nuisance; stable refuse periodically, the refuse, meanwhile, to be stored in suitable receptacles—paved, drained, and enclosed within iron racks, above ground.
4. *Conclusion*.—Legislation is necessary to give effect to the above recommendations, and to compel railway and canal companies to carry refuse from towns at a reasonable, while remunerative, rate.

### HOUSE REFUSE.

The collection of ashes, and miscellaneous refuse, from upwards of 21,000 houses, over an area of 2,200 acres, and to the extent of 34,000 loads in a single year, is no light task and complaints of neglect by the dustmen were habitual when the work was done by contract. So frequent, indeed, did the complaints become, at last, that your Vestry, desirous of satisfying the legitimate requirements of the parishioners, determined, in 1877, to abolish the contract system altogether and to undertake the “dusting” as well as the scavenging and the watering of the entire parish. The results have justified the change: the work of dust-removal has ever since been done in an increasingly satisfac-

tory manner; complaints are rare and applications even, for the removal of ashes, are now few by comparison with the shoals with which formerly it was found so difficult to deal. Not infrequently, moreover, when the dustmen have been censured for supposed neglect, it has turned out on enquiry that the servants were in fault; such lame excuses as that the hour of the dustman's call was "inconvenient"; or that "the steps had just been cleaned", being deemed sufficient for turning the dustman away and for the perpetuation of the nuisance of a full and often stinking dustbin. And nuisance, it may be averred, arises almost solely from the improper use of the receptacle, by the deposit therein of animal and vegetable refuse, of which it may be said that the former has an appreciable value, and should be utilized, while the latter admits of being burned on the kitchen fire. A notification to this effect was left at every house in the parish in 1873, and again in 1883.

Efforts have been made to systematise the work of dust-collection by dividing the parish into districts, and by providing for the inspection of the dustbins and for supervision of the "dusting gangs." A call is now made at every house once a week and further improvement is scarcely possible until the whole abominable system of dust-harbourage shall have given place to the only rational practice of a daily collection from moveable receptacles deposited in the early morning on the footway, ready for the call of the dustman.

Delay in the removal of ashes, at present, arises not unfrequently from the inconvenient position in which the receptacle is placed, *e.g.*, in a deep area, to which there is no access save by ladders—a short one on the foot pavement, and a longer one in the area. Apart from the question of danger to the dustmen in the use of the ladders, it is a question whether your Vestry should not insist on some more satisfactory provision being made, as by steps and an area gate, giving safe and convenient access to the receptacle? In some cases where there are steps, householders refuse to allow the gate to be unlocked, thus wilfully endangering the safety of the unfortunate dustmen.



## STABLE REFUSE.

For several years I have felt it my duty to draw your Vestry's attention to the removal, or rather to the *non*-removal, of stable refuse. A "Notice" has been framed and published enjoining "periodical removal of manure, etc.," by the owners, under the provisions of Section 53 of the Sanitary Act, 1866, which prescribes a penalty of twenty shillings a day for default; nevertheless the most frequent cause of complaint by parishioners, and the most frequent of recurring nuisances, arises from the neglect of this obligation. Proceedings have been taken occasionally to enforce the provision of the section, but not with uniform success, the offenders having usually been able to satisfy the Justices of their inability to perform the duty required of them. The difficulty not seldom originates with the coachman, who will not give the refuse away, while the farmer or his carter will not pay for it. At certain seasons, *e.g.*, hay-making time and harvest, there is, no doubt, a difficulty in getting the receptacles cleared, farmers being too busy to send their carts into town, or, when they do, to allow them to stay to collect the refuse. The refuse, nevertheless, has value, if it could only be got on to the land without undue cost. The quantity made in this large parish, with its 150 mews, is very great, and of an aggregate value, probably, more than sufficient to pay for its collection and removal from London. It is a question whether your Vestry should not undertake such collection and removal, as the law allows, "with the sanction of the owner?" The necessary sanction would often be cheerfully given, and probably it would not be difficult to obtain in the great majority of cases, were it understood that the requirements of the law would be enforced. The published notice requires that the manure should be removed "every alternate day," but twice a week in summer, and once a week in winter, would probably suffice for all practical requirements, in ordinary cases, if the manure were stored above ground in properly constructed receptacles.

## NECESSARY ACCOMMODATION.

There are only twelve public urinals in this great Parish, a very inadequate number, and no public water closets save at the rear of

the Vestry Hall. Your Vestry's powers with regard to this "necessary accommodation" are ample, but difficulty has been experienced in giving effect to the provisions of the 88th section of the Metropolis Management Act, which enables the "Nuisance Authority" to "provide and maintain urinals, water-closets, and like conveniences, for both sexes, in situations where they deem such accommodation to be required."

Owing to the opposition raised by inhabitants in the neighbourhood of the sites selected for such proposed erections, a proposition was made, by a private individual firstly, and afterwards by a Company, to provide *châlets* for the convenience of the public, as a commercial speculation; but the Law and Parliamentary Committee having reported that your Vestry have no authority for placing obstructions in the public streets, the matter fell through. In some other parishes the scheme has been entertained favourably and *châlets* have been erected; there is one at Shepherd's Bush Green. Should the system be found to work satisfactorily, means will doubtless be found to overcome any legal difficulties that may appear to stand in the way of its extension.

#### PUBLIC BATHS AND WASHHOUSES.

The Commissioners have obtained an Act enabling them to purchase the site at Notting Hill to which I referred in my report for 1882. It is to be hoped, therefore, that we shall see next year the realization of our long delayed hopes for the provision of Baths and Washhouses. I am of opinion that much good might be effected by the provision of a number of buildings, on a modest scale, in different parts of the parish, to which the poor might resort for the purpose of washing clothing, and that the question of public washhouses might with advantage be separated from that of public baths.

#### MORTUARY.

The Mortuary in the Parish Churchyard, at the rear of the Vestry Hall, was opened in July, 1883, and in the first year nearly

fifty bodies were deposited. In the second year the number deposited was 79. The Mortuary comprises two chambers, one for infectious, and the other for non-infectious, bodies, separated by a "place provided for *post mortem* examinations." This "place" is designed "for the reception of dead bodies for and during the time required to conduct any *post mortem* examination ordered by the Coroner," who "may order the removal of the body for carrying out such *post mortem* examination and the re-removal of such body, the costs of such removal and re-removal to be paid in the same manner and out of the same fund as the costs and fees for *post mortem* examinations when ordered by the Coroner." (Sanitary Act, 1866, sec. 28.) The Coroner has ordered the removal of several bodies and now appears to be desirous of availing himself of the use of the Mortuary, which is highly convenient to medical practitioners who have to make *post mortem* examinations.

Few, comparatively, as have been the bodies admitted during the first two years, many of the cases were of a nature to prove the necessity, and to justify the provision, of the mortuary. In course of time the advantages of the institution will be more appreciated and greater use of it will be made. If medical men and clergymen would inculcate the propriety of removal of the dead to the mortuary, in suitable cases, there would be no cause of complaint on the score of its disuse. Much might be done if medical men would give the certificate necessary to secure the removal of an infectious body, or of a body in an offensive condition from decomposition, so as to enable a Justice to order the removal of such body to the mortuary, under Section 27 of the Sanitary Act, 1866.\* Medical men appreciate the facilities offered by the mortuary when they have to make *post mortem* examinations; and well they may, for the inconvenience of making such examinations in private houses is well known and the objections to the practice in the homes of the poor are very serious.

---

\* For the views of the Royal Commission with respect to the provision and use of Mortuaries, see page 196 *ante*, written after the above section was in type.

**MORTUARY KEEPER'S RESIDENCE.**—Inconvenience has arisen from the difficulty, hitherto insuperable, of finding lodgings for the Mortuary Keeper within a reasonable distance of the Mortuary. With a view to enable him to be always at hand when wanted, the Works, Sanitary, and General Purposes Committee negotiated a preliminary agreement with the Churchwardens, for obtaining a site on the Churchyard, adjoining the Mortuary, whereon to erect a lodge for his residence. A faculty would have been necessary to give effect to this agreement and the Churchwardens were willing to apply for one. Nothing, unfortunately, came of the matter, your Vestry having declined to accede to the terms of the Churchwardens, which involved a payment of money by way of compensation for the land. The money was to have been expended in putting the Churchyard in proper order. An arrangement should be made even now with the Churchwardens, to secure the site, if the matter is still open to negotiation. The Churchyard, however, has been put in order by a charge upon the Poor rate, which the parishioners pay, and the rate will be charged with the cost of keeping the ground in decent condition in perpetuity. Nothing, therefore, has been saved, but much has been lost, by the failure of the negotiations with the Churchwardens. The then Churchwardens approached the consideration of the subject in a friendly spirit, and I would fain hope that their successors may be found willing to co-operate with your Vestry for the public advantage in this matter, especially as the improvement of the Churchyard has been brought about at the public cost, although not out of the rates controlled by your Vestry.

#### CORONER'S COURT.

It is now very generally the practice to provide, in connection with a mortuary, a building in which the Coroner can hold his Court, thus rendering it unnecessary for the holder of that ancient and dignified office to have to resort to public-houses for the needful accommodation. But this step seemed unnecessary in Kensington as there are rooms at the Vestry Hall, to which the

mortuary is adjacent, convenient and suitable for the purpose. Accordingly, the Works, Sanitary, and General Purposes Committee authorized me to communicate with the Churchwardens, who, as trustees of the Vestry Hall, kindly consented to place a room at the disposal of the Coroner whenever required, on due notice being given, and subject to the payment which the Coroner is authorized to make, and does make, for such accommodation provided elsewhere for the same purpose.

About 150 inquests are held in the Parish annually, and the majority of them, probably, could be held at the Vestry Hall, were it the pleasure of the Coroner, in whose power it is, as already mentioned, to order bodies to be removed to the "place provided for *post mortem* examinations," when such examination is necessary. In such cases—about two-thirds of the whole number—it would seem a natural thing for a judge, for such the Coroner is, to hold his Court in a public building; but this, practically, he never does, giving as his reason the impossibility of complying with the requirement of the Churchwardens for previous application for the room, prior to the issue of the notices to the jurymen, witnesses, &c. It is, nevertheless, impossible to resist the conviction that if there were a common desire in the matter, on the part of the Coroner and of those who have the control of the building, the wishes of your Vestry and, I may say, of the parishioners generally, that Inquests should be held at the Vestry Hall, would soon be realized.

#### DISINFECTION.

During the year ended March 25th, 1885, a large number of infected articles of clothing, bedding, carpets, curtains, &c., were satisfactorily disinfected by the contractor at the cost of your Vestry, the owners being too poor to bear the expense. The weight of the articles was more than 14 tons: their number 7,157, and the cost of the process £263. Three hundred and sixteen rooms in 240 houses were disinfected with sulphurous acid by your Vestry's officer, no charge being made in the majority

of instances. Many rooms were disinfected by the contractor, as well as numerous parcels of clothing, bedding, etc., at the cost of persons able to pay.

## WATER SUPPLY.

PROFESSOR FRANKLAND'S REPORT.—Believing it to be desirable that your Vestry, as the body responsible in this great Parish for carrying into effect the provisions of sanitary legislation, should receive the latest and best information on all points connected with the water supply, a subject of great importance in relation to the public health, it has been my custom, for many years, to summarise the reports prepared annually by Professor Frankland, for the Registrar-General, and by Colonel Sir Francis Bolton, R.E., the official "Water Examiner," appointed under the Metropolis Water Act, 1871. I do so again this year. Dr. Frankland deals mainly with the quality of the water in its chemical and microscopical aspects, and in respect to its fitness for dietetic and domestic purposes, he being, as is well-known, adverse to riparian sources of supply; while Sir Francis Bolton's observations have reference, *inter alia*, to the condition of the water in bulk, at the intakes, and to its physical qualities when delivered to the consumer—in a word, to whatever relates to the collection, subsidence, filtration, storage, and distribution of the water.

London is mainly supplied from the rivers Thames and Lea, but a considerable and increasing quantity of water is obtained from deep wells sunk in the chalk, not only by the Companies which obtain their entire supply from that source, but also by some of the old Companies which thus supplement their intake of river water. The average daily volume supplied per head of population in 1884, was 29 gallons.

Dr. Frankland is consistent in his preference for "deep well water," taking it as the standard of purity in comparative observations on the waters generally. In a previous report he described it as being "delicious and wholesome" and uniformly excellent for dietetic purposes, maintaining that in the interests of temperance and public health, it should, as soon as possible, be substituted for that portion of the Metropolitan supply which is drawn from polluted rivers. This "pure spring water," he said, "is everywhere abundant in the Thames basin: in dry seasons it constitutes the sole supply of the Thames and the Lea, and, even after the

most protracted drought, more than 350,000,000 gallons of it daily flow over the weir at Teddington, whilst a further very large volume of it joins the Thames lower down." He considered that it would be a valuable boon to London if even a small fraction of this prodigal supply could be collected, preserved from irremediable pollution and distributed to those portions of the Metropolis which are not at present supplied with such water. The principal objection to it is its hardness, but this is an objection easily surmounted.

The "hardness" of water represents the weight of carbonate of lime, or its equivalent of other soap-destroying substances, found in 100,000 parts of water. The average hardness of the Thames water delivered in London last year was  $19^{\circ}4$ ; of the Kent Company's water  $28^{\circ}6$ ; and of the Colne Valley Company's water only  $5^{\circ}2$ . The difference in hardness which the waters exhibit is of no material importance when they are used for drinking, but when used for laundry purposes the advantages of soft water, like that furnished by the Colne Valley Company, are very great. In the washing of linen soft water is indispensable, and if the water is not delivered soft it must be rendered soft, either by means of carbonate of soda or by means of soap which is still more costly. When water is softened in detail by the laundress, the operation costs, for an equal volume of water, about eighty times as much as it costs when conducted on a large scale by a water company. The only water suitable for washing delivered in London during the past year was that of the Colne Valley Company, which, naturally hard, being drawn from the chalk, is artificially softened before distribution,

All waters, save artificially prepared distilled water, contain more or less "solid matter." A large proportion of this solid matter consists of mineral salts which in no way impair the quality of the water for drinking, but they render the water hard. A small proportion of the solid matter, on the other hand, is always organic. Small quantities of organic matter of vegetable origin are not objectionable in drinking water, but the organic matter of animal origin in rivers, which receive sewage, may at any time become dangerous to health.

The deep-well waters delivered by the Kent Company and by the Tottenham Board of Health, contained the largest proportions of solid matter; but the deep-well water derived from the same source and supplied by the Colne Valley Company, contained little more than one-fourth of the quantity found in the river waters, and less than one-fifth of that in the Kent Company's water; this comparative freedom from saline matters being attained by adding a small quantity of slaked lime to the water (Clark's process) before it leaves the Company's works. All the water supplied to the Metropolis would be improved by being submitted to the same process or one of its modifications.

Owing to the careful filtration to which the river water is now subjected together with the improved means of storage at the command of the

Companies, it being no longer necessary to impound the worst flood waters, and to the action of the conservators, the average quality of the water supplied has become better year by year, and more uniform throughout the year. The river Lea water was better last year than that drawn from the Thames. Of Thames derived waters the New River Company supplied the best and the Southwark Company the worst. Deep-well waters undergo such a prolonged, exhaustive and inimitable natural filtration through great thicknesses of porous strata, as to render it extremely unlikely that any suspended organic matter known to be prejudicial to health, should have escaped removal. Hence these waters are "uniformly pure and wholesome."

The following table exhibits the proportional amounts of organic elements, (organic carbon and organic nitrogen), in the waters of the Companies which supply Kensington, the Kent Company's water being used as the standard of purity for comparison :—

Name of Company.				Maximum.	Minimum.	Average.
Kent	...	...	...	1·3	0·5	0·8
Chelsea	...	...	...	4·6	2·2	2·8
Grand Junction	...	...	...	5·3	2·2	2·8
West Middlesex	...	...	...	4·0	2·1	2·8

The Companies drawing from the river are now in possession of much more adequate appliances for storage and filtration than formerly, and to this cause, in part, it was due that during the past year there was a remarkable freedom from an excessive proportion of organic matter, and an almost uniform clearness even during the winter months. Owing to the dryness of the summer season, moreover, there was little surface drainage of cultivated land, the supply of water being chiefly derived from deep-seated springs. On this account the river water was exceptionally free from organic contamination during many months, and consequently the inhabitants of London, instead of suffering from the exceptionally hot weather, were supplied with water unusually free from organic matter. The improvement in respect of freedom from excessive amounts of organic matter is very striking, and has been practically continuous since 1868 when systematic analyses were first undertaken.

But with the proportion of organic matter at its minimum, there is no certainty that the water does not contain the germs of zymotic disease, there being no guarantee against such morbid matters gaining access to the river, and there being nothing in the subsequent treatment to which the river water is subjected by the Companies that will ensure the removal of matters of this description. On this account, several of the Companies themselves, it is stated, are now impressed with the necessity of ultimately abandoning the rivers Thames and Lea as



sources of water-supply, and some of them have already completed works for utilizing underground waters which have undergone natural filtration through great thicknesses of gravel and sand, whilst others are sinking deep-wells in the chalk. Last year it had to be remarked that the protection provided by the common law to rivers was denied to subterranean sources of water, which, it appeared, as the result of a decision by Mr. Justice Pearson in an important case, (*Ballard v. Tomlinson*), might be polluted or poisoned to an unlimited extent without legal redress. It is satisfactory, in the interests of public health, that this judgment has since been unanimously reversed in the Court of Appeal.

A marked and undeniable advantage of spring water is its evenness of temperature. The mean temperature of all the Companies' waters is practically the same, but the extremes are much more marked in the case of the river than in that of the deep-well waters. The range of temperature in the water of the Thames, as delivered by five of the Companies last year, amounted to 29°·7 Fahr., viz., from 42°·8 in December to 72°·5 in August. The deep-well water furnished by the Kent Company varied in temperature from 53°·6 in February and March to 58°·8 in June; range 5°·2. The deep-well waters remain of an agreeable coolness in the hottest months, whilst the river water becomes unpleasantly warm and unpalatable.

The transparency or otherwise of water is ascertained by its appearance in a tube two feet in length, and is expressed in arbitrary terms settled by common agreement, as in the following table, which shows the degree of efficiency of filtration of Thames water as supplied by the Companies in this parish, and indicates a great improvement over former years, the examinations being made monthly :—

		NUMBER OF OCCASIONS.			
Name of Company		When clear and transparent.	When slightly turbid.	When turbid.	When very turbid.
Chelsea	...	12	0	0	0
West Middlesex	...	11	1	0	0
Grand Junction	...	12	0	0	0

“There is nothing which exhibits more strikingly the greatly increased care and attention which is bestowed upon the water supply of the Metropolis, by the various companies to whom this supply is entrusted, than the marked improvement in transparency. For the turbidity of the water is the only factor over which they have complete control, depending, as it does, exclusively, upon the storage capacity and filtering appliances which each water company has at its disposal.” The deep-well waters are uniformly bright, and require no artificial filtration.

When examined under the microscope, the sediment deposited by turbid water, on standing, is generally found to contain living and moving organisms. The occurrence of such organisms has become more and more rare in late years, and last year was observed on one occasion only, and that not in water supplied to this Parish, the several waters being examined monthly.

The subjoined Table shows the annual averages of each determination, and thus summarises the average results of the analysis of the water supplied by the local Companies during the year, the Kent Company's water being taken as a standard for comparison. The numbers in this Table relate to 100,000 parts of the waters, but may be converted into grains per imperial gallon by multiplying them by 7 and then moving the decimal point one place to the left.

NAME OF COMPANY.	Temperature in Centigrade Degrees.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates and Nitrites.	Total combined Nitrogen.	Chlorine.	Total Hardness.	Proportional amount of organic Elements, that in the Kent Company's Water during the 9 years ending Dec., 1876, being taken as 1°.
Chelsea .....	12°·1	26·27	·142	·026	0	·177	·203	1·6	18·9	2·8
West Middlesex ...	12°·9	26·62	·143	·021	0	·179	·201	1·6	19·1	2·8
Grand Junction ...	12°·1	26·82	·155	·026	0	·182	·207	1·6	19·4	3·1
Kent .....	13°·3	40·77	·039	·009	0	·452	·462	2·5	28·6	0·8

THE WATER EXAMINER'S REPORT.—I turn now to the Annual Report of Colonel Sir Francis Bolton, R.E., which contains much information of general interest relating to the water supply.

Sir Francis Bolton, it should be mentioned, makes monthly inspections of the several Metropolitan waterworks, filter beds, reservoirs, &c.; he examines the quality of the water, both at the intake and after filtration at the works, and he reports monthly the results of such inspections and examinations to the Local Government Board. One of the most important of his duties is to ascertain whether or not the requirements of Section 4 of the Metropolis Water Act of 1852 are complied with, viz., that "every Company shall effectually filter all water supplied by them within the metropolis before the same shall pass into the pipes

for distribution.” The effectual filtration of river water depends, he says, upon—

1. A sufficient area of properly constructed filter beds, constantly clean, and fresh sanded from time to time as the original thickness is reduced.
2. The rate of filtration being controlled and limited to a certain speed.
3. The water delivered into the filter beds having been previously stored in subsiding reservoirs, and the capacity of these reservoirs being such as to avoid the necessity for the intake of turbid and muddy water during the time of extraordinary and heavy floods, which tend to foul and choke the filters.

The rate of filtration should not exceed 540 gallons per square yard of filter bed each 24 hours, or  $2\frac{1}{2}$  gallons per square foot per hour. Filtration ought to be effectual at this rate, which, for all practical purposes, may be considered as a standard. Effectual filtration is greatly facilitated by previous subsidence. The average rate of filtration, per square foot of filtering area per hour, by the local companies, in gallons, is, West Middlesex,  $1\frac{1}{2}$ ; Grand Junction and Chelsea,  $1\frac{3}{4}$ ; the requirements of the Act in this respect, therefore, are fully carried out.

The filter beds are formed as follows:—

*West Middlesex*.—Harwich sand, 2ft. 3in. ; Barnes sand, 1ft. ; gravel screened to different sizes, and arranged in layers, 2ft. 3in. Total thickness,  $5\frac{1}{2}$ ft.  
*Grand Junction*.—Harwich sand, 2ft. 6in. ; Hoggins, 6in. ; fine gravel, 9in. ; coarse gravel, 9in. ; boulders, 1ft. Total thickness,  $5\frac{1}{2}$ ft.  
*Chelsea*.—Thames sand, 3ft. 3in. ; shells, &c., 3in. ; gravel, 4ft. 6in. Total thickness, 8ft.

It avails little, however, that the water is well filtered if it is allowed, as so frequently happens, to deteriorate in the cisterns of the consumers through the uncleanly condition of those receptacles, and the connection of them with the drains through the medium of “waste-pipes,” which the Companies only have the power to abolish under the provisions of the 14th water regulation, which reads as follows:

Regulation 14.—“No over-flow or waste-pipe, other than a warning-pipe, shall be attached to any cistern supplied with water by the Company, and every such overflow or waste-pipe existing at the time when these Regulations come into operation shall be removed, or at the option of the consumer shall be converted into an efficient ‘warning-pipe,’ within two

calendar months next after the Company shall have given to the occupier of, or left at the premises in which such cistern is situate, a notice in writing requiring such alteration to be made."

Sir Francis Bolton remarks that—

"The particular object of the above regulation is to prevent the waste of water, but if the overflow pipe is brought outside the house, and the end left exposed to the air, instead of being carried into the drain, as is often the case, it will effect an object of far greater importance by getting rid of the poisonous effluvia and gases from the drains, which would otherwise ascend through the pipe, and not only be partly absorbed by the water in the cistern, but be partly mixed with the air in the houses, thereby becoming a cause of fever and disease."

The remedy, no doubt, is a "constant supply" (with abolition of cisterns for storage of potable water), but as we shall have to wait for this, I would again urge that means should be taken to compel the Companies to exercise their powers, or that the Vestries and District Boards should have co-ordinate authority with the Companies to enforce the regulation. Meanwhile, the attention of householders cannot be too frequently drawn to the necessity of the abolition of waste-pipes, and of periodical cleansing of the cisterns for storing potable water, which, moreover, should be properly covered so as to exclude light and dirt, and so placed that the water may be kept cool in summer without being in danger of freezing in winter. The stop-valve should be fixed outside the premises to prevent damage to the house in case of pipes burst by frost or other causes. When constant supply is given a screw-down draw-off tap should be affixed to the rising main, or service pipe, so that drinking and cooking water may be drawn therefrom without the intervention of cisterns, which are required for washing, flushing, baths, and similar purposes.

The quantity of water supplied daily, 238, 161, and 246 gallons per house, by the Grand Junction, West Middlesex, and Chelsea Companies respectively, was superabundant, and indicates waste, amounting as it did, in the three districts respectively, to 30.5, 20.6, and 31.5 gallons per head of the population. The "intake" of the Chelsea Company is at West Molesey, and of the other Companies at Hampton Court. The Grand Junction supply is supplemented from gravel beds at Hampton, the

Company having a complete system of underground collection of water on about 20 acres of land, and being able during times of flood to raise 12 million gallons of water per day that has passed through the natural beds of gravel and sand which are characteristic of the neighbourhood. The state of the water in the Thames during the months of February and December, and parts of January, March, April and June, was generally bad, and the water that had to be taken in by the Companies was much polluted, and was found to be very difficult to filter. The solid impurities in suspension, chiefly consisting of clay, marl, and chalk in a very finely divided state, can be got rid of only by long subsidence previous to filtration. The storage reservoirs appear to be adequate for the purpose.

The following particulars with respect to the local Companies are derived from Sir Francis Bolton's report :—

*Storage and Filtration.*—No new works have been found necessary by the West Middlesex and Chelsea Companies, the existing means being sufficient to meet all requirements at all times of the year. The Grand Junction Company have completed their new works at Hampton, and have commenced the construction of two additional filters capable of filtering an additional quantity of nearly three million gallons per day. By means of these works an independent and direct supply is maintained to the whole of the low level district from Hampton to Notting Hill. They have also connected their mains with those of the East London Waterworks Company, so that one Company can assist the other in case of emergency arising from fracture of a main, etc.

*Constant Supply.*—I have no means of ascertaining to what extent the constant supply has been extended to houses in this parish, but the following facts relating to the subject, in the districts of the Companies in which we are interested, may be acceptable. The West Middlesex Company are giving constant supply to all new estates and buildings, and where new services are laid down constant supply is made compulsory by the Company ; 4,362 houses were put on constant supply during the year, and in May, 1885, the number of houses on constant supply was 18,419, out of a total of 65,619 ; comparatively few of these, I imagine, being in this parish.

The Grand Junction Company in May, 1885, were giving constant supply to 33,583 houses, out of a total of 50,014 ; the increase during the year 1884, was 7,082, and the system has been extended to North Kensington and new estates at Notting Hill.

The Chelsea Company in May, 1885, were giving constant supply to 4,183 houses (increase during the past year 695), out of a total of 33,300 ; and are fully prepared to extend the system as required. Judging from the few applications made for constant supply, there appears to be no desire on the part of the public authorities, or private individuals, in any of the districts, for the continuous service ; but all new lines of streets are being so supplied. The Chelsea Water Company is the only one of the eight Metropolitan Water Companies which has given no notice of its intention to substitute a constant for an intermittent supply under the provisions of the Act of 1871.

By way of contrast, and to show how backward the Western Companies are in the matter of constant supply, as compared with the Companies in the East; of London, it may be mentioned that the East London Water-works Company now give constant supply to 125,138, out of a total of 147,080, houses supplied by them, and containing an estimated population of 1,069,537 persons. Considerable advance was made during the past year in London as a whole in extending the constant supply : 278,951, out of the total number of 684,654 houses supplied being now on constant service.

The number of miles of streets containing mains constantly charged, and on which hydrants for fire extinguishing purposes could at once be fixed, in the districts of the local Companies are, West Middlesex, 92½ ; Grand Junction, 74 ; and Chelsea, 71½. The Companies are ready to affix hydrants on the mains whenever required to do so. In the Metropolis there are now fixed only 7,206 hydrants, the total length of mains being 977½ miles ; the increase, in mains, during 1884 being 61½ miles, and in number of hydrants, 651.

**DETERIORATION OF WATER IN DIRTY CISTERNS.**—The Local Government Board some time ago, addressed a circular letter to Nuisance Authorities in the Metropolis, stating that the Water Examiner had drawn their attention to the serious deterioration which water frequently undergoes, after delivery, by being kept in impure cisterns, and they sent an extract from one of his reports on the examination of the water supplied by the Companies. Sir Francis Bolton's observations were directed (1) to the deterioration of the water by the dirty and uncovered condition of the cisterns ; (2) to the need for frequent cleansing of cisterns, and (3) to the misplacing of the cistern, where there is but one, and that one not only situated over a water closet, but also having communication with the drains by means of the waste-pipe.

The importance of the subject is undeniable, and, with the view to removal of defects, your Vestry's Sanitary Inspectors have standing instructions to inspect the cisterns of every house visited, *where practicable*. It is the fact, however, that cisterns are frequently so placed as to be inaccessible equally for inspection and for cleansing; often, moreover, there is but one cistern, and it is commonly placed immediately over a water closet, as stated by Sir Francis Bolton. With respect to the improper placing of a cistern we have no power to interfere, but the Water Companies might, if so minded, do something to remedy the evil complained of, viz., under the 13th Regulation, which provides that "Every cistern . . . shall be . . . properly covered and placed in such a position that it may be inspected and cleansed."

I need hardly remind your Vestry that the subject of water supply has constantly engaged my attention, or that the matters referred to in the Water Examiner's above-mentioned report have invariably received consideration in my Annual Reports. I was glad, therefore, that the subject had been brought to the notice of the Local Government Board, and I ventured to suggest the desirability of a reply being sent to the Board's communication directed to calling the attention of the Board to the necessity of such an alteration in the law as should give Nuisance Authorities co-ordinate power with the companies to enforce the regulations, and thus give effect to the views of the Water Examiner. This was done, but without result.

**ABOLITION OF WASTE-PIPES.**—In a Memorandum by the Medical Officer to the Local Government Board on the subject of "Precautions against Cholera," adverted to at page 45, in my Report for 1883, it was advised that "any connections of waste-pipes of cisterns with drains should be severed." As this advice was entirely in accordance with the views of your Vestry, advantage was taken of the opportunity it afforded to draw attention, once again, to the imperfections of the law, and of the water regulations, which do not allow of Sanitary authorities following the advice of the Board's Medical Officer. Communications were forthwith

addressed to the Board, to the Vestries and District Boards, and to the local Waterworks Companies. The Board was informed that your Vestry was sensible of the value of the advice given, and fully concurred with the Water Examiner, that if Regulation 14 were "carried out in its integrity," it would "prevent contamination of the water from the gases generated by sewage." Request, therefore, was made that the Board should take steps to secure the severance of all connections of waste-pipes with drains, by urging the Companies to put Regulation 14 into immediate and general operation, viz., by serving the required notice on consumers. Should the Companies refuse or neglect, the Board was asked to consider as to the desirability of bringing in a Bill to confer on Sanitary Authorities the necessary power to enforce the regulation.

The Sanitary Authorities were requested to support your Vestry's action in the matter by addressing a similar communication to the Board and by recommending the several Water Companies to put the regulation in force, and thereby bring about a much needed and important sanitary improvement. Many of them did as requested.

The Water Companies were reminded that the most effectual plan for giving effect to the advice of the Board was by their serving notice on the consumers to cut off waste-pipes, in conformity with the provisions of Regulation 14. And "having regard to the danger of a polluted water supply, especially at a time when the introduction of Cholera was possible, and to the probability that should Cholera ever spread in the Metropolis it would be, as on a former occasion, through the water supply, "the great importance of taking steps without loss of time to carry the said regulation into effect," was pressed upon the attention of the several Companies.

[I may here mention, by way of parenthesis, that I endeavoured, some years ago, to stimulate the local Companies to exercise their power to abolish waste-pipes. I was given to understand that the Chelsea Company—at a time when they were short of water, prior to the construction of their new works at Molesey—had taken steps to abolish waste-pipes, with a view to economise consumption, but



I failed to get the West Middlesex and Grand Junction Companies to move in the matter. The views expressed by the Secretaries were to the effect that "the Companies, being trading bodies, did not care to offend their customers: the regulation was intended to prevent waste of water, simply, and as they had plenty of water they didn't care about the waste." The Chelsea Company have an abundance of water at the present time, but they complain of waste, for Sir Francis Bolton, referring to this Company, says, "A large quantity of water continues to be wasted by defective fittings, and the Company are taking active measures, by means of an increased staff of Inspectors, to discover the sources of waste, and it is hoped that, by their perseverance, it will gradually be reduced." I failed also in the attempt to convince the Secretaries that the Commissioners, in framing Regulation 14, must surely have had in view the removal of a dangerous nuisance as well as the prevention of waste. It may be added that under the regulations for the construction of drainage to new houses, which have been enforced for some time past in this parish, and also under the "Regulations for houses let in lodgings or occupied by members of more than one family," waste-pipes are not allowed to have direct communication with the drains. But to resume]

The Local Government Board subsequently addressed a communication to the Water Companies on the subject of Regulation 14, and these in turn prepared circular notices, which were left at every house in the districts of the several Companies. Attention was drawn to the excellent advice upon the subject of cleansing and covering of cisterns, and cutting-off of waste-pipes, which, from time to time, the Water Examiner embodies in his reports. In every circular also, the regulation was quoted in its entirety. It is impossible to say how much or how little good may have been effected as a result of the trouble the Companies took in the matter; it is impossible, moreover, not to regret that the Companies did not go one step further and give the required "notice" to every householder, to cut-off all connections of waste-pipes of cisterns with drains, as they had been

urged to do, and thus effect an important sanitary reform. It would have been to their interest to do this, as I believe many of the complaints of bad water which arise from time to time are due to the dangerous connections of waste-pipes with drains, and that if these were abolished the Companies' water would be held in greater repute.

Waste-pipes, we are told, will be abolished when constant supply is given, but for this large portions, in fact, the bulk of the parish, will still have to wait a long time, as the Companies appear to be unwilling to move in the matter any faster than the necessities of the constant system require. Meanwhile, Sir Francis Bolton continues to reiterate, monthly, his sound advice to householders, and there would be some prospect of it reaching them if the promise made last year were carried out, viz., that an abstract from his reports should be printed on the back of the Companies "call papers." The collectors, it was also said, last year, would be instructed by the Companies to "report immediately any bad cases they might discover, (but how should they discover any?), in order that the attention of the Sanitary Authorities might be drawn thereto." No such case has been reported to me during the twelve months, to date, since the above arrangements were stated to have been made. Sir Francis Bolton points out that if the conditions contained in the regulation were observed by consumers and by local (*i.e.*, nuisance or sanitary), authorities, as well as by the Water Companies, many of the evils complained of would be prevented. Compliance with the regulation, doubtless, should be enforced upon consumers, but I have not been able to ascertain that the nuisance authorities have the power, with which, by implication, Sir Francis Bolton appears to credit them; and as for the Companies, we are likely enough still to have occasion to complain, as in former years, that, as a rule, they do not, and will not, systematically enforce the regulation, excepting for their own trading purposes. Nothing short of an epidemic of cholera will suffice to bring about universal compliance with the advice of the Water Examiner, viz., by the exercise of the powers possessed by the Water Companies under Regulation 14.

**GAS.**

The subjoined tables, based on the quarterly reports of the Chief Gas Examiner, summarise the principal results (averages) of the daily testings at the Ladbroke Grove Station of the "common gas," manufactured by the Gas Light and Coke Company at their Kensal Green Works.

1. *With respect to illuminating power.* The maximum, minimum, and average illuminating power, in standard sperm candles, the statutory standard being sixteen candles was as follows :—

	Maximum.	Minimum.	Average.
Quarter ended March 31st	17·8	16·2	17·0
Quarter ended June 30th	17·6	16·7	17·0
Quarter ended September 30th	18·0	16·7	16·9
Quarter ended December 31st	17·7	16·3	16·9
<hr/>			
Averages, whole year	17·8	16·5	16·9

It will thus be seen that the minimum illuminating power of the gas was better than the requirements of the Acts of Parliament. But it is stated, in the Annual Report of the Metropolitan Board of Works, as the result of testings with a portable photometer, that there are parts of London, the inhabitants of which do not always get their gas of the quality which it was thought had been secured to them by Act of Parliament; the gas having been frequently found to be inferior in lighting power to the prescribed standard, sometimes by as much as one candle. There is no way of preventing this, the Companies in default being subject to no forfeiture or penalty as they are when the gas is shewn to be defective at the regular testing places. The above facts point to the necessity for an alteration of the law. The gas referees approve of the testing of gas by means of a portable photometer, and the Metropolitan Board of Works have advised the Board of Trade that statutory power should be obtained for that mode of testing, so that gas companies may be liable to forfeitures for gas which the portable photometer shewed to be defective in lighting power. The Metropolitan Board have also suggested the expe-

diency of an alteration in the standard of light prescribed by the statutes. The statutory standard is a sperm candle of six to the pound, burning 120 grains an hour, and the gas is required to be of such lighting power as to produce, when consumed at the rate of five cubic feet an hour, a light equal to that produced by sixteen candles. A Committee appointed by the Board of Trade has reported adversely to the continuance of the use of the sperm candle as a standard, it having been proved that, in spite of all the precautions taken to secure uniformity in the manufacture of the candles, there remained considerable variation in their lighting powers.

2. *As regards purity.* The gas was wholly free from sulphuretted hydrogen throughout the year, and the *average* quantity of sulphur compounds with which the gas was charged, was usually less than a half of the maximum amount allowed, the maximum not being attained on any occasion.

Grains of sulphur per 100 cubic feet of gas; the Parliamentary limit being 17 grains in 100 cubic feet, during the months from April to October, and 22 grains from October to April.

	Maximum.	Minimum.	Average.
Quarter ended March 31st	12·2	6·3	8·6
Quarter ended June 30th	12·8	7·7	6·4
Quarter ended September 30th	10·8	6·5	8·7
Quarter ended December 31st	13·8	6·2	9·3
<hr/>			
Averages, whole year	12·4	6·7	9·2

*Ammonia*, a valuable residual product of gas manufacture, was present in the gas in slight quantities, never in excess of the quantity permitted by the Acts of Parliament. The average was considerably below the Parliamentary maximum, four grains in 100 feet of gas.

The Chief Gas Examiner is altogether independent of the Company; it is satisfactory, therefore, to note that his reports of the daily testing of the gas are so favourable.

No complaint was received by me during the year from any private consumer in respect of the illuminating power of the gas,

and I understand that Mr. Philip Monson, your Vestry's Superintendent of Street Lighting, is satisfied with the quality of the gas as supplied to the public lamps. The burners now in use consume gas at the rate of 4·5 cubic feet per hour, whereas the burners formerly in use, originally provided when Cannel gas was employed, consumed only 3 feet per hour. Notwithstanding the increased consumption of gas, (50 per cent.), and the consequent improvement in the lighting of the public thoroughfares, the cost is not greater than under the old system of a fixed annual payment per lamp. Great complaints, however, are made by private consumers, who allege, and justly, I believe, that however much the nominal price of gas may go down, (the shareholders', profits going up *pari passu*), the actual annual payment for gas is always increasing; the reason, doubtless, being, that proper apparatus for controlling the consumption of gas is not applied, either at the meter or in connection with the individual burners. And as it is to the interest of the Company to maintain an excessive pressure, for then more gas is forced through the meter, and has to be paid for by the unfortunate consumer, who, moreover, is put to heavy charges for cleansing ceilings, &c., made dirty by unconsumed gas and smoke, I would, once again, submit that systematic records of *pressure*, at all hours of the day and night, and at several points in the Company's district within the parish, should be obtained. It would be well, moreover, if Mr. Monson would prepare, and your Vestry circulate directions shewing how to burn gas to the greatest advantage, with a minimum of consumption. I might enlarge on this subject, but in Mr. Monson your Vestry have an officer able and willing to advise consumers to their advantage. I will content myself therefore by expressing a hope that his services may be enlisted in their behalf.

---

CONCLUSION.—It now only remains for me to discharge the grateful duty of thanking all who have contributed by their kind help to whatever success may have attended the work of my Department during the past year.

To the sympathetic co-operation of the Board of Guardians I have already had occasion to refer, and it would be quite impossible to overrate the value of the services rendered by them and their officers in measures for preventing the spread of infectious diseases.

The sub-district Registrars, Messrs. Barnes and Hume, and the Vaccination Officer, Mr. Shattock, have, as usual, most willingly complied with all my applications for information on subjects connected with their several duties.

The members of the Sanitary Staff have discharged their onerous, and in some respects dangerous, duties with zeal, intelligence, and success. To Mr. Rudman, the Sanitary Clerk, I am much indebted for the assistance he has rendered me in passing this Report through the press.

Lastly, my thanks are due to your Vestry for a continuance of the confidence and support which, for a period of fourteen years, has never failed me, and which has enabled me to carry out, with pleasure and satisfaction, the duties of my office, and to superintend the working of a department the importance of which, I have reason to believe, is now cordially recognized by the general body of the ratepayers.

I am, Gentlemen,

Your obedient servant,

T. ORME DUDFIELD,

*Medical Officer of Health.*

OFFICES : TOWN HALL,  
KENSINGTON, W.,  
July, 1885.



## APPENDIX.

---

NOTE.—The forms for Tables I.—VI. were compiled  
by the Society of Medical Officers of Health, with  
the object of securing uniformity in Statistical  
Returns.



# APPENDIX



**TABLE I.**

Shewing the Population, Inhabited Houses, Marriages, Births, and Deaths for the Year 1884, and 10 years preceding.

The Year.	Estimated Population*	No. of Inhabited Houses†	Marriages.	Registered Births.	DEATHS.		
					Total all Ages ‡	Under One Year.	Under Five Years
<b>1884</b>	<b>170,000</b>	<b>21,290</b>	<b>1,498</b>	<b>4,394</b>	<b>2,638</b>	<b>678</b>	<b>1,021</b>
1883	168,000	21,030	1,616	4,230	2,615	601	982
1882	165,450	20,908	1,474	4,327	2,691	635	1,114
1881	163,540	20,666	1,461	4,400	2,726	644	1,061
1880	161,462	20,700	1,483	4,605	2,884	719	1,211
1879	148,316	20,240	1,428	4,790	2,992	722	1,211
1878	154,305	19,719	1,331	4,607	3,120	823	1,421
1877	151,360	19,330	1,411	4,648	2,625	648	1,041
1876	148,338	18,944	1,417	4,499	2,896	771	1,301
1875	144,488	18,444	1,346	4,478	2,786	686	1,111
1874	138,616	17,667	1,311	4,356	2,696	762	1,118
Average of 10 yrs. 1874-83.	155,387	19,444	1,427	4,494	2,803	701	1,116

Population at Census 1861, 70,108 ; 1871, 120,234 ; 1881, 163,151.

Average Number of Persons in each house at Census in 1871, 7·6 ; in 1881, 7·7.

Area of Parish, 2,190 acres. Number of Persons to an acre (1884), 76

\* For statistical purposes the population is estimated to the middle of the year on the basis of the rate of increase ruling between the two preceding Census periods, the known number of inhabited houses, and by the average number of persons as ascertained at the preceding Census.

† Mean of number on rate books in April and October yearly.

‡ Inclusive of the deaths of parishioners at public institutions outside the parish, exclusive of the deaths of non-parishioners at public institutions within the parish.

§ Viz: at the Parish Infirmary and at outlying public institutions, in the Asylum Board's hospitals.

hs, and

r In Pub-  
lic Insti-  
tutions §

0 439

1 483

4 403

7 437

9 369

8 424

9 410

0 420

5 338

9 338

8 352

7 397

1881, 8-1.

'6.

year, on the  
checked by  
is per house,

parish, and  
rish.  
cluding the

1879	30.2	18.8	150	241	407	138
1878	29.8	20.2	178	268	458	132
1877	30.7	17.3	132	246	396	135
1876	30.3	19.5	171	266	450	117
1875	30.9	19.2	153	246	401	121
1874	31.4	19.4	174	282	440	131
Average of 10 years 1874—1883.	29.0	18.0	154	249	415	139

\* Includes Deaths of Parishioners at outlying Public Institutions, but excludes deaths of non-parishioners at Brompton Consumption Hospital and Marylebone Infirmary, Notting Hill. In the years 1874—83 the deaths at Brompton Consumption Hospital are included as compensation for an unknown number of deaths of Parishioners at outlying Public Institutions.



## Deaths Registered from all causes in the year 1884.

(Exclusive of the Deaths of Non-Parishioners at Public Institutions within the Parish, but inclusive of the Deaths of Parishioners at Public Institutions outside the Parish.)

[illegible]





**TABLE IV.**

Shewing the number of Deaths at all ages in 1884 from certain groups of Diseases, and proportions to 1,000 of Population, and to 1,000 Deaths from all causes; also the number of Deaths of Infants under one year of age from other groups of Diseases, and proportions to 1,000 Births and to 1,000 Deaths from all causes under one year.

Division I. (Adults).	Total Deaths.	Deaths per 1,000 of Population at all ages.	Deaths per 1,000 of Total Deaths, at all ages.
1. Principal Zymotic Diseases ...	314	1·8	119
2. Pulmonary Diseases	524	3·0	198
3. Principal Tubercu- lar Diseases ...	367	2·1	139
Division II. (Infants under One Year).	Total Deaths.	Deaths per 1,000 of Births.	Deaths per 1,000 of Total Deaths under One Year.
4. Wasting Diseases..	191	43	277
5. Convulsive Diseases	82	18	119

**NOTES.**

1. Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping-cough, Typhus Fever, Enteric (or Typhoid) Fever, Simple Continued Fever, and Diarrhoea. Thirty-nine of the deaths occurred in Hospitals outside the Parish.
2. Includes Phthisis, Scrofula, Tuberculosis, Rickets, and Tabes.
3. Includes Debility, Atrophy, Inanition, Want of Breast Milk, and Premature Birth.
4. Includes Hydrocephalus, Infantile Meningitis, Convulsions, and Teething. (In Table III. Hydrocephalus, and Infantile Meningitis are classified with tubercular diseases, Convulsions with diseases of the nervous system, and Teething with diseases of the digestive system).





**TABLE VI.**  
**Inspectors' Report of the Sanitary Work completed in the year 1884-5.**

Sanitary Districts.*	No. of Complaints received during the year.	No. of Houses, Premises, &c., inspected.	No. of Re-inspections of Houses, Premises, &c.	Results of Inspection.			House Drains.		Water-Closets.			Dust Bins.		Water Supply.			Miscellaneous.							
				Orders issued for Sanitary Amendments of Houses and Premises.	Houses, Premises, &c., Cleansed, Repaired, Whitewashed, &c.	Houses Disinfected after illness of an Infectious Character.	Repaired, Cleansed, Trapped, &c.	Ventilated.	Repaired, &c.	Supplied with Water.	New provided.	New provided.	Repaired, Covered, &c.	Cisterns (new) erected.	Cisterns Cleansed, Repaired, and Covered.	Waste-pipes connected with Drains, &c., abolished.	No. of Lodging Houses registered under 35th Section of the "Sanitary Act, 1866." †	Dust Removal—No. of Communications received and attended to. ‡	Removal of Accumulations of Dung, Stagnant Water, Animal and other Refuse.	Animals Removed, being improperly kept.	Bakehouses.	Licensed Cowsheds.	Licensed Slaughter-houses.	Legal Proceedings : i.e., Summonses. §
N.W.	58	1301	1338	470	112	56	66	57	59	115	5	33	57	13	78	8	...	185	110	51	38	8	10	83
N.E.	74	1112	1311	373	183	71	256	31	197	131	5	5	19	2	44	26	...	406	70	14	45	2	5	24
Central.	134	1437	1953	258	168	85	166	34	25	38	7	17	18	11	29	26	...	364	12	21	30	2	7	8
South	56	1923	1791	429	482	104	176	74	78	69	6	3	69	14	151	64	...	517	152	3	42	3	2	24
TOTAL	322	5773	6393	1530	945	316	664	196	359	353	23	58	163	40	302	124	...	1472	344	89	155	15	24	139

\* The North-East and North-West Districts are north of the centre of Uxbridge Road ; to the East and West of Ladbroke Grove, and Ladbroke Grove Road respectively : the Central and South Districts are south of Uxbridge Road.

\* The North-East and North-West Districts are north of the centre of Uxbridge Road ; to the East and West of Ladbroke Grove, and Ladbroke Grove Road respectively : the Central and South Districts are south of Uxbridge Road.

† This Section of the Act was not in operation in 1884-5.

‡ The actual complaints of neglect made by letter were 58.

§ Inclusive of proceedings, in 9 cases, under the Food and Drugs Adulteration Act, the Inspector for the North-West District being the Inspector under the Act, and in 22 cases of "obstructions, &c.," on and over the public ways.

TABLE VIa.

Summary of Monthly Returns of Work, &amp;c., done by the Sanitary Inspectors, 1884-5.

Houses Inspected.				Mews Inspected.				Slaughter Houses Inspected.				Cowsheds Inspected.				Bakehouses Inspected.				Offensive Trades Inspected.				Sanitary Notices Issued.				Removal of Dust, Ashes, &c., Letters of Request received and attended to.				Date of Report.
District.				District.				District.				District.				District.				District.				District.				District.				
N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	N.W.	N.E.	C.	S.	
117	102	162	171	121	253	81	191	13	6	8	8	2	3	4	13	...	4	28	40	22	13	12	5	31	61	35	30	24	33	14	36	Ap. 19, 1884
122	116	144	192	146	251	95	192	2	7	8	8	11	8	3	12	28	...	22	3	18	7	20	5	38	33	26	37	18	39	38	29	May 17 "
115	79	63	178	136	248	69	199	13	7	7	8	11	3	3	12	4	24	...	...	16	25	10	5	84	48	19	31	32	51	41	56	June 14 "
111	128	113	198	134	245	70	182	13	5	9	8	7	3	3	12	8	14	5	5	7	25	14	2	36	19	8	40	48	129	129	149	July 12 "
111	72	143	158	147	254	84	117	15	10	10	4	11	3	4	12	20	9	6	...	36	29	21	2	38	25	25	45	9	25	19	47	Aug. 9 "
98	24	56	22	187	67	46	29	10	8	...	2	7	3	1	2	9	...	1	...	26	3	19	1	71	1	4	4	4	25	12	23	Sept. 6 "
25	64	69	62	45	340	65	102	...	10	7	6	...	6	3	6	17	21	18	...	16	31	14	4	11	14	12	18	6	24	19	29	Oct. 4 "
102	105	111	160	125	252	83	196	12	7	9	9	13	4	4	12	17	19	13	...	24	20	20	7	29	32	11	35	3	8	13	21	Nov. 1 "
134	96	116	133	131	249	85	216	6	6	5	8	6	2	6	11	6	15	11	2	21	18	21	5	44	27	8	46	8	8	7	21	" 29 "
91	84	95	150	146	241	75	137	10	5	9	8	6	3	2	12	...	11	12	3	17	17	14	2	22	48	29	31	6	11	11	19	Dec. 27 "
82	82	95	164	133	249	69	156	8	9	5	8	9	2	4	12	22	36	17	3	24	32	11	4	15	13	10	26	8	16	22	20	Jan. 24, 1885
83	113	147	161	162	252	87	170	13	7	6	8	8	3	4	13	1	23	9	5	22	26	16	6	28	25	37	39	9	17	24	46	Feb. 21 "
110	147	123	174	149	242	86	177	6	7	8	8	5	4	4	11	9	27	13	8	31	17	22	5	23	27	34	47	10	20	15	21	Mar. 21 "
1301	1112	1437	1923	1762	3143	995	2064	121	94	91	93	96	47	45	140	141	203	155	69	280	263	214	53	470	373	258	429	185	406	364	517	Totals.

TABLE VII.

Showing the Death Rate per 1,000 persons living: the Annual Rate per 1,000 from the "seven" principal Diseases of the Zymotic class; and the proportion of Deaths from these Diseases to total Deaths in Kensington and all London, in 1884, and in ten previous years.

The Year.	Deaths per 1,000 living.		Total Deaths from seven Zymotic diseases, Kensington.	Annual rate of Mortality per 1,000 living from seven Zymotic Diseases.		Proportion of Deaths to 1,000 Deaths from seven Zymotic Diseases.		The Year.
	Kensington.	London.		Kensington.	London.	Kensington.	London.	
1874	19·4	22·5	388	2·8	3·3	144	147	1874
1875	19·2	23·7	372	2·5	3·9	133	164	1875
1876	19·5	22·3	498	3·3	3·6	171	162	1876
1877	17·3	21·9	339	2·2	3·5	129	160	1877
1878	20·2	23·5	573	3·7	4·1	183	175	1878
1879	18·8	23·3	348	2·2	3·3	116	143	1879
1880	17·8	22·2	469	2·9	3·7	162	170	1880
1881	16·6	21·2	383	2·3	3·6	140	172	1881
1882	16·2	21·4	376	2·2	3·5	140	163	1882
1883	15·5	20·4	251	1·5	2·7	96	134	1883
AVERAGES OF TEN YEARS.	18.0	22·2	399	2·5	3·5	141	159	AVERAGES OF TEN YEARS.
1884	15·1	20·3	314	1·8	2·7	119	164	1884

TABLE VIII.

Comparative Analysis of the Mortality in all London and in Kensington in 1884.

LOCALITY.	Annual Death Rate per 1,000 living from all causes.	Annual Death Rate per 1,000 living from seven principal Zymotic diseases.	Per-centage of Deaths under 1 year to Births Registered.	PER-CENTAGE OF DEATHS TO TOTAL DEATHS.					
				Under 1 year of age.	At 60 years of age and upwards.	From seven principal Zymotic diseases.	From Violence.	Registered upon information of the Coroner's (Inquests.)	Registered at Public Institutions.*
London ...	20.3	2.7	15.5	25.7	20.5	16.4	3.5	6.9	20.5
Kensington ...	15.1	1.8	15.6	26.1	23.0	11.9	2.0	6.1	17.1

\* Viz.—Parish Infirmary, Brompton Consumption Hospital, so far as relates to Deaths of Parishioners therein, and at outlying Public Institutions, i.e., Hospitals, etc.



Showing the Localities in which Fatal Cas

KENSINGTON TOV													
Locality.	DISEASES.								Total.	Locality.			
	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.					Diarrhoea.		
						Typhus.	Enteric.	Sim. Com.					
Abingdon Road .....			1						1	Golborne Road ..			
Absolom Road.....					1				4	„ Terrace			
Adair Road.....	1				1				1	Hazlewood Cresc			
Addison Road, W. .				1					1	Holland Road ..			
Bangor Street.....	1	1							2	„ Villas R			
Basing Road .....	1								1	Kensington High			
Blechynnden Street .....	1		1		1				2	„ Park			
Bolton Road .....							1		2	„ Squar			
Bosworth Road .....									2	Lancaster Road			
Branstone Street.....									2	Linden Gardens			
Buckingham Terrace ...	1			1					1	Lionel Mews.....			
Bulmer Terrace .....					2				2	Lonsdale Road ...			
Cambridge Gardens ...	1								1	Lorne Gardens ...			
Campden Hill Road .....							1		1	Infirmiry, Marloe			
„ Houses .....		2			1				1	Johnson Street ...			
„ Street.....			1		2				3	Manchester Road			
Charles Street.....					1				2	„ Street			
Clarendon Road .....					1				2	Marloes Road ...			
Crescent Street .....		1			2				1	Norfolk Terrace			
Earl's Court Road .....			1						1	Peel Street .....			
Elvaston Mews .....			1						1	Pembridge Squar			
Ernest Street .....	1								1	Portland Road ..			
Faraday Road.....					2				2	Portobello Road			
Fowell Street .....			1		1				2	Princes Road ..			
BROMPTON RI													
Alfred Place West .....				1					1	Grove Place ....			
Beaufort Gardens .....							1		1	Hogarth Road .			
Bolton Gardens Mews...				1					1	Ifield Rd. & Adria			
Brompton Road .....	1			2					3	Kempsford Gard			
Chapel Place .....		1	1						1	Nevern Road....			
Child Street.....				1					1	North Street ....			
Cromwell Gardens .....	1								1	Ovington Garder			
Eardley Crescent .....					1		1		2	Pembroke Road.			
Fulham Road .....							1	1	2	Prince's Mews .			
Grenville Place .....							1		1	Queen's Gate....			

# E. IX.

of the Principal Zymotic Diseases occurred in 1884.

## TRATION SUB-DISTRICT.

DISEASES.							Total.	Locality.	DISEASES.							Total.	
Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.			Diarrhoea.			Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.			
			Typhus.	Enteric.	Sim.Com.									Typhus.	Enteric.		Sim.Com.
...	...	1	...	...	...	1	3	Queen's Gate Terrace	...	...	...	...	...	1	1	...	2
1	...	...	...	...	...	...	1	Rackham Street	...	...	...	4	...	...	...	1	5
2	...	...	...	...	...	1	3	Raymede Street*	1	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	2	St. Ann's Road	...	...	...	1	...	...	...	1	3
1	...	...	...	...	...	...	1	St. Ervan's Road	...	...	2	...	...	...	...	1	3
...	...	...	...	...	...	...	1	St. Katherine's Road	...	1	...	...	...	...	...	1	2
...	...	...	...	1	...	...	1	St. Mark's Road	...	...	...	...	...	1	...	1	2
...	...	...	...	1	...	...	1	Silchester Terrace	...	...	...	...	...	...	...	4	4
...	1	1	...	...	...	1	6	Southam Street	...	...	1	4	...	1	...	...	6
...	1	...	...	...	...	...	1	Swinbrook Road	...	1	...	1	...	...	...	2	4
...	...	...	...	...	...	...	2	Tavistock Road	...	...	...	1	...	...	...	2	3
...	...	2	...	...	...	1	3	Testerton Street	1	...	...	1	...	1	...	1	4
...	...	1	...	...	...	2	3	Tobin Street	...	...	...	...	...	...	...	2	2
...	...	...	...	...	...	2	5	Treverton Street	...	...	...	2	...	...	...	2	4
...	...	...	...	...	...	1	1	Uxbridge Street	...	1	...	1	...	...	...	...	2
...	...	...	...	2	...	3	5	Virginia Place	...	1	...	...	...	...	...	...	1
1	...	...	...	...	1	2	5	Walmer Road	...	...	...	2	...	...	...	2	4
1	...	...	...	...	...	...	1	Weston Terrace	...	...	...	1	...	1	...	1	3
...	1	...	...	...	...	...	1	William Street	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	1	3	Wornington Road	1	1	...	4	...	...	...	2	8
...	...	...	...	1	...	1	2	* And 1 Dysentery.									
...	1	...	...	...	...	5	6										
...	...	3	...	1	...	5	10										
...	...	...	...	1	...	1	2										

## ION SUB-DISTRICT.

...	...	2	...	...	...	2	2	Queen's Gate Pl. Mews	...	...	...	...	...	2	...	...	2
...	1	...	...	...	1	2	2	Radley Mews	...	1	...	1	...	...	...	...	2
1	...	2	...	...	3	6	6	Sloane Place	...	...	...	...	1	...	1	...	2
...	...	...	...	...	...	1	1	Stamford Cottages	1	...	...	1	...	...	...	...	2
...	...	...	...	1	...	1	1	Stanhope Mews	1	...	...	...	...	...	...	...	1
...	...	...	...	...	...	1	1	Sumner Place & Mews	...	...	1	...	...	1	...	...	2
...	...	...	...	...	...	2	2	Thurloe Place	1	...	...	...	...	...	...	...	1
1	...	...	...	...	...	2	1	Victoria Road	1	...	...	...	...	...	...	...	1
...	...	...	...	...	...	2	2	Walgrave Terrace	...	...	...	...	...	1	...	...	1
...	...	...	...	1	...	1	1	Westgate Terrace	...	...	...	...	...	1	...	...	1





**TABLE X.**  
**PARISH OF ST. MARY ABBOTTS, KENSINGTON.**

Return respecting the Vaccination of Children whose Births were Registered in 1884.

DATE.	Registration Sub-Districts comprised in Vaccination Officer's District.	Number of Births returned in Birth List Sheets.	Number of these Births duly entered in Columns 10, 11 and 13 of the Vaccination Register (Birth List Sheets), viz. :					Number of these Births which are not entered in the Vaccination Register, on account (as shewn by Report Book) of			
			Column 10 Successfully vaccinated.	Column 11. Insusceptible of Successful vaccination		Had Small-pox.	Column 13 Dead. Un-vaccinated.	Postponement by Medical Certificate.	Removal to District the Vaccination Officer of which has been duly apprised.	Removal to places unknown, or which cannot be reached, and cases not having been found.	Cases still under proceedings by summons and otherwise.
1884.	1	2	3	4	5	6	8	9	10		
1st January } to 30th June }	Kensington Town	1732	1488	7	1	139	20	5	72	...	
	Brompton	461	402	8	...	38	6	2	4	1	
1st July } to 31st Dec. }	Kensington Town	1706	1411	10	...	157	42	4	80	2	
	Brompton	426	362	5	...	34	7	1	15	2	
	TOTAL	4325	3663	30	1	368	75	12	171	5	

**TABLE XI.**  
**LICENSED SLAUGHTER-HOUSES.**

SOUTH OF UXBRIDGE ROAD.

LOCALITY.	LICENSEE.
6, Church Street, Kensington	Mr. Blott
11, Peel Place, Silver Street-	„ Osborn
The Mall, Silver Street -	„ Wright
183, Brompton Road - -	Mrs. French
60, Kensington High Street -	Mr. Evans
15, High Street, Notting Hill	„ Short
133, ditto ditto	„ Candy
6, Addison Terrace, ditto	„ Beall
35, Earl's Court Road - -	„ Matson

NORTH OF UXBRIDGE ROAD.

13, Archer Mews - - -	Mr. Bawcombe
195, Clarendon Road - -	„ Rea
10, Edenham Mews - - -	„ Goddard
2, Ledbury Mews - - -	„ French
Lonsdale Mews - - -	„ Green
50, Princes Road- - -	„ Parratt
10, Princes Mews - - -	„ Short
10, Princes Yard- - -	„ Coles
Clarendon Mews - - -	„ Colley
41, Princes Place - - -	„ Grant
23, Norfolk Terrace - -	„ Harris
61, Silchester Road - -	„ Crawforth
235, Walmer Road - - -	„ Van
Royal Crescent Mews - -	„ Brooker
Ditto ditto - - -	„ Down

**TABLE XII.****LICENSED COWSHEDS.****SOUTH OF UXBRIDGE ROAD.**

LOCALITY.	LICENSEE.
5, St. Mark's Road, Fulham Rd.	Mr. Cotching
Newland Terrace (rear of) -	„ Tisdall
Addison Cottage, Lorne Gds.	„ Glenie
Newcombe Street - - -	„ Lunn
Earl's Court Road (rear of 117)	„ Thorne

**NORTH OF UXBRIDGE ROAD.**

5, Ledbury Mews - - -	Mr. Liddiard
187, Walmer Road - - -	„ Arnsby
235, Walmer Road - - -	„ Van
47, Tobin Street, Notting Dale	„ Skingle, Jun.
12, Blechynden Mews - - -	„ Burton
14, Ditto ditto - - -	„ Copperwheat
23, Bramley Road - - -	„ Tame
27, Queen's Road, Norlands -	„ Williams
Elm Cottage, St. Mark's Road	„ Bowyer

1

2

3

4

5

6

7













